

## NCX & M2 INTEGRATION PCNA

NORTHERN & SOUTHERN INTERCHANGE

POST CONSTRUCTION OPERATIONAL COMPLIANCE NOISE ASSESSMENT

RWDI # 2202138

9 September 2022

### SUBMITTED TO

Transurban Pty Ltd  
Suite 1302, 68 York Street  
Sydney NSW 2000

### SUBMITTED BY

Adrian Pinto  
**Project Engineer**  
[Adrian.Pinto@rwdi.com](mailto:Adrian.Pinto@rwdi.com)

Claire Graham White  
**Project Engineer**  
[claire.graham-white@rwdi.com](mailto:claire.graham-white@rwdi.com)

**RWDI Australia Pty Ltd (RWDI)**  
Suite 602, 80 William Street  
Woolloomooloo NSW 2011  
T: +61 2 9437 4611  
E-mail: [solutions@rwdi.com](mailto:solutions@rwdi.com)  
ABN: 86 641 303 871



## DOCUMENT CONTROL

Version	Status	Date	Prepared By	Reviewed By
A	Draft	16 August 2022	Adrian Pinto	John Wassermann
B	Draft	18 August 2022	Adrian Pinto	John Wassermann
B	Final	19 August 2022	Adrian Pinto	John Wassermann
C	Final	9 September 2022	Adrian Pinto	Remi Larmandieu

### NOTE

All materials specified by RWDI Australia Pty Ltd (RWDI) have been selected solely on the basis of acoustic performance. Any other properties of these materials, such as fire rating, chemical properties etc. should be checked with the suppliers or other specialised bodies for fitness for a given purpose.

The information contained in this document produced by RWDI is solely for the use of the client identified on the front page of this report. Our client becomes the owner of this document upon full payment of our **Tax Invoice** for its provision. This document must not be used for any purposes other than those of the document's owner. RWDI undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.

### WILKINSON MURRAY

In October 2020, Wilkinson Murray Pty Ltd merged with RWDI Group, a leading international consulting firm. Wilkinson Murrays core practice areas of noise, acoustics, vibration and air quality consulting built since 1962 servicing Australia and Asia-Pacific region will complement RWDI practice areas. Combined, RWDI+Wilkinson Murray is one of the largest teams globally specialising in the area of noise, acoustics, vibration and air quality.

### RWDI

RWDI is a team of highly specialised consulting engineers and scientists working to improve the built environment through three core areas of practice: building performance, climate engineering and environmental engineering. More information is available at [www.rwdi.com](http://www.rwdi.com).

### AAAC

This firm is a member firm of the Association of Australasian Acoustical Consultants and the work here reported has been carried out in accordance with the terms of that membership.



### QUALITY ASSURANCE

RWDI Australia Pty Ltd operates a Quality Management System which complies with the requirements of AS/NZS ISO 9001:2015. This management system has been externally certified by SAI Global and Licence No. QEC 13457 has been issued for the following scope: The provision of consultancy services in acoustic engineering and air quality; and the sale, service, support and installation of acoustic monitoring and related systems and technologies.







## EXECUTIVE SUMMARY

The NorthConnex and M2 Integration project was a road upgrade with potential to increase noise impact adjacent residences. NorthConnex is a 9-kilometre twin-tube motorway tunnel in northern Sydney, New South Wales, Australia, and opened for traffic on 31 October 2020. It acts as a tunnel bypass of the Pennant Hills Road, connecting the M1 Pacific Motorway Wahroonga to the M2 Hills Motorway West Pennant Hills in Sydney's north.

During the construction stage of the project, a number of noise mitigation such as quieter pavement surfaces, new barriers/raised barriers, and provision of architectural treatment at individual residences were included.

To satisfy the conditions of the CoA, a post construction noise assessment has been completed in accordance with the relevant policies and guidelines.

As-built barriers were included in the validation noise model along with minor changes to elevation contours as part of the assessment process. The post operational validation model was validated by comparing predicted levels to measured levels at 10 locations spread across the Northern and Southern sections of the project. The resulting noise model was considered as valid as the difference between the predicted and measured levels were less than  $\pm 2\text{dB}$ .

Traffic data and other relevant parameters for the design year 2029 were then incorporated into the validated model to update the predictions for the year 2029. Predicted levels from the post operational compliance model are found to be no greater than the predictions of the detailed design model (ONMAR) at all receivers within the study area.

Finally, an assessment of a noise compliant has been conducted. Although the findings indicate an exceedance of the base night time criterion, the predictions indicate that the PCNA levels are no higher than the predictions of the ONMAR report. Hence no further treatment is required for this residence.

## GLOSSARY OF ACOUSTIC TERMS

Most environments are affected by environmental noise which continuously varies. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. These descriptors, which are demonstrated in the graph below, are here defined.

**Sensitive Receiver** - Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility.

**Sound** - Any pressure variation that the human ear can detect.

**Sound Level Meter** - An instrument designed to measure sound pressure levels. Typically, sound level meters consist of a microphone, signal amplifier and processing and storage facilities. Sound Level Meters can be rated to perform to a specific standard, defined by International Standards.

**Sound Pressure Level** - Ten times the logarithm to the base 10 of the ratio of the sound pressure of the source to the reference sound pressure. It is the most common way of measuring the magnitude of sound at a distance from a noise source.

**Sound Power Level** - Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power. It represents the inherent acoustic energy of a noise source and therefore does not change with distance or environment.

**Maximum Noise Level ( $L_{Amax}$ )** - The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

**$L_{A1}$**  - The  $L_{A1}$  level is the noise level which is exceeded for 1% of the sample period. During the sample period, the noise level is below the  $L_{A1}$  level for 99% of the time.

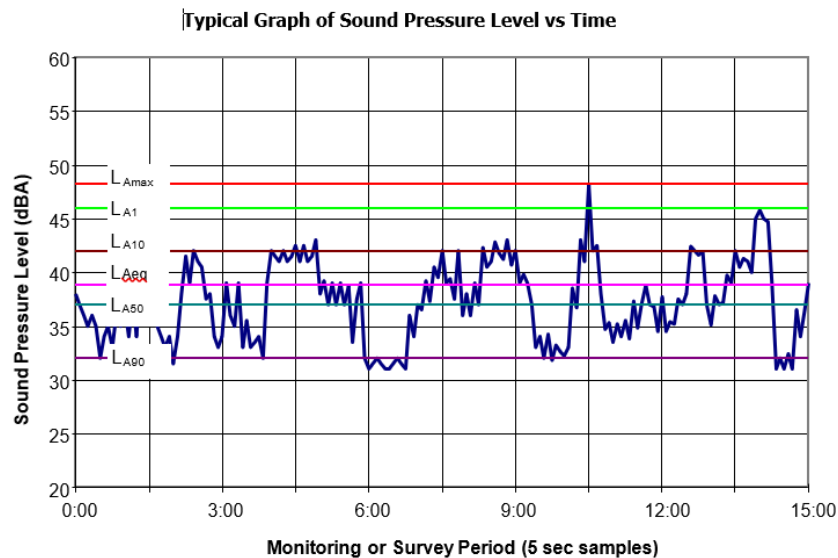
**$L_{A10}$**  - The  $L_{A10}$  level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the  $L_{A10}$  level for 90% of the time. The  $L_{A10}$  is a common noise descriptor for environmental noise and road traffic noise.

**$L_{A90}$**  - The  $L_{A90}$  level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the  $L_{A90}$  level for 10% of the time. This measure is commonly referred to as the background noise level.

**$L_{Aeq}$**  - The equivalent continuous sound level ( $L_{Aeq}$ ) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This measure is also a common measure of environmental noise and road traffic noise.

**ABL** - The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level ( $L_{A90}$ ) for each period.

**RBL** - The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period - daytime, evening and night time.



**MCoA** - Minister for Planning Condition of Approval

**DPI&E** - Department of Planning, Industry and Environment

**ENMM** - Environmental Noise Management Manual

**EPA** - NSW Environmental Protection Authority

**EIS** - Environmental Impact Statement

**Insertion Loss** – Barrier performance is measured by its insertion loss defined as the difference in sound pressure level before and after the barrier is constructed.

**Noise Barrier** – Any natural or artificial physical barrier to the propagation of noise (from a roadway), but generally referring to acoustically reflective or absorbent fences, walls or mounds (or combinations thereof) constructed beside a roadway.

**O&M** - Operation and Maintenance

**O&M Contractor** - Undertakes the operation and maintenance of the asset under the O&M deed

**O&M Contractor Personnel** - All people employed by the O&M Contractor to undertake operation and maintenance work.

**O&M Stakeholders** - All entities undertaking operational and maintenance activities on the asset. Typically including North Western Roads, TRANSURBAN and O&M Contractor and other sub-contracted parties.

**OEMP** - Operation Environmental Management Plan

**ONMP** - Operational Noise Management Plan



# TABLE OF CONTENTS

## GLOSSARY OF ACOUSTIC TERMS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Objectives .....	2
1.2	Scope of Assessments.....	2
<b>2</b>	<b>PROJECT OVERVIEW .....</b>	<b>3</b>
2.1	Operation .....	3
2.1.1	Hills M2 Integration Works .....	3
2.1.2	Southern Interchange.....	4
2.1.3	Main Tunnels and On- & Off-Ramps (in Tunnel) .....	4
2.1.4	Tunnel Support Facilities.....	4
2.1.5	Northern Interchange.....	4
2.1.6	The M1 Pacific Motorway Tie-In Works .....	4
2.1.7	Ventilation System & Facilities.....	5
2.1.8	Motorway Operations Complex .....	5
2.1.9	Coral Tree Drive Sub Station.....	5
<b>3</b>	<b>ENVIRONMENTAL OBLIGATIONS.....</b>	<b>8</b>
3.1	Statutory Obligations .....	8
3.1.1	Ministerial Conditions of approval.....	8
3.1.2	Legislation .....	10
3.2	Other Obligations .....	10
3.2.1	Environmental Policies, Guidelines & Principles .....	10
<b>4</b>	<b>NOISE LEVEL OBJECTIVES .....</b>	<b>11</b>
4.1	Road Noise Policy.....	11
4.2	Assessment Timeframe.....	11
4.3	Noise Criteria for Residential Land Use .....	11
4.4	Noise Criteria for Non-Residential Noise-Sensitive Receivers.....	12
4.5	Noise Model Validation Guideline .....	14
4.6	Guidance on Feasible & Reasonable Mitigation .....	15
<b>5</b>	<b>NOISE CACHEMENT AREAS .....</b>	<b>16</b>
<b>6</b>	<b>NOISE MONITORING.....</b>	<b>20</b>



6.1	Unattended Noise Monitoring.....	20
6.1.1	Monitoring locations.....	20
6.1.2	Noise monitoring equipment.....	23
6.1.3	Data Exclusions .....	24
6.2	Measured Traffic Noise $L_{Aeq,T}$ Levels .....	24
<b>7</b>	<b>TRAFFIC VOLUMES.....</b>	<b>25</b>
7.1	Traffic Counts for Validation Period.....	25
7.2	Traffic volumes for Post Construction Noise model.....	26
<b>8</b>	<b>NOISE MODELLING .....</b>	<b>28</b>
8.1	Purpose .....	28
8.2	Noise Modelling Procedures.....	28
8.3	Validation of Noise Model .....	31
<b>9</b>	<b>ASSESSMENT OF POST CONSTRUCTION OPERATIONAL NOISE .....</b>	<b>33</b>
<b>10</b>	<b>COMPLAINT ASSESSMENT .....</b>	<b>33</b>
<b>11</b>	<b>CONCLUSION .....</b>	<b>35</b>

## LIST OF APPENDICES

Appendix A – Sensitive Receiver Mapping & Noise Catchment Areas

Appendix B – Traffic Noise Measurement Locations

Appendix C – Noise monitoring Charts

Appendix D – Spot checks/ comparison of Asbuilt barriers vs design barriers

Appendix E - Revised predicted noise levels at residences since ONMAR report

Appendix F- Change in predicted noise levels at residences since ONMAR report



# 1 INTRODUCTION

RWDI has been commissioned by Transurban to prepare a Post Construction Noise Assessment (PCNA) for the NorthConnex and M2 Integration (NCx & M2I) projects. The expansion of M2 between Pennant Hills Road and Windsor Road is referred to as the M2 Integration Works. In particular, this report details the findings regarding post construction operational traffic noise associated with the NorthConnex Northern Section, NorthConnex Southern Section, M2 Integration, portals, and associated roadworks, including any further mitigation measures required.

NorthConnex is a 9-kilometre twin-tube motorway tunnel in northern Sydney, New South Wales, Australia, and opened for traffic on 31 October 2020. It acts as a tunnel bypass of the Pennant Hills Road, connecting the M1 Pacific Motorway Wahroonga to the M2 Hills Motorway West Pennant Hills in Sydney's north.

Relevant information contained within the RWDI (Wilkinson Murray) report *13245-O Operational Noise Mitigation Assessment Report Ver J*, dated 20 November 2019 (ONMAR) have been utilised as the basis for this post construction operational compliance noise assessment (PCNA; also called Operational Noise Review).

Further, information contained within the previous Environmental Impact Statement (EIS) has also been utilised in the current noise survey, where it is still considered appropriate. In particular, Appendix F – Technical working paper: Noise and vibration in Volume 2 of the EIS has been utilised (ref RMS/Pub: 14.187).

In addition, the RWDI (Wilkinson Murray) Report *13245-CD-3 Noise & Vibration Baseline Information Report in Response to COA D9, version L*, dated May 2015, has been referenced in this assessment. The report documents baseline noise information for the NorthConnex and M2 Integration projects, as required by condition D9 of the “Noise and Vibration” section of the Infrastructure approval released by the Minister for Planning on 13 January 2015.

This assessment has been carried out in accordance with the following:

- EPA Road Noise Policy (RNP, 2011)
- TfNSW Model Validation Guideline(MVG, 2018)
- TfNSW Noise Criteria Guideline (NCG, 2015)
- TfNSW Noise Mitigation Guideline (NMG, 2015)
- TfNSW Environmental Noise Management Manual (ENMM, 2001)
- Procedure for Post Construction Noise Assessment by Transport for NSW (TfNSW, 2017)



## **1.1 Objectives**

The purpose of this review is to document the process, objectives, and outcomes of the Post Construction Noise Assessment (PCNA) to satisfy the Minister for Planning's Conditions of Approval E25 and E26 for the project. The PCNA required by NSW Department of Planning & Environment (DPI&E) provides a framework for ensuring adequate noise mitigation is provided at noise catchments along the project. The PCNA will identify deficiencies or gaps in the original operational noise assessment and determine where errors may have been made. The PCNA has three main components:

- Measurement of traffic noise and survey of traffic volumes to provide input to the detailed design noise model with as-built barriers and road pavemnets for validation purposes;
- Validation of the detailed design noise model using measured data and adjustment of the noise model as necessary; and
- Modification of previously designed reasonable and feasible noise mitigation measures, if necessary, including identification of additional properties requiring consideration for architectural treatments.

## **1.2 Scope of Assessments**

In performing the PCNA, RWDI confirms that the assessment was performed by RWDI in accordance with generally accepted professional standards at the time when the Assessment was performed and in the location of the Project. No other representations, warranties, or guarantees are made with respect to the accuracy or completeness of the information, findings, recommendations, or conclusions contained in this Report. This report is not a legal opinion regarding compliance with applicable laws.

The findings and recommendations set out in this report are based on the following information disclosed to RWDI:

- Traffic data for the monitoring period provided by Transurban
- As built Noise barrier drawings provided by Transurban
- List of complainant locations provided by Transurban

This assessment is limited to the assessment of Operational Road Traffic Noise for the project and does not address Noise impacts from:

- fixed facilities in relation to the project including the northern and southern portals
- northern and southern ventilation facilities
- the Motorway Operations Complex
- the Trelawney Street and Wilson Road emergency smoke extraction outlets and the Coral Tree Drive switching station

Further this assessment does not address the impacts on residential buildings built after the ONMAR report.

## 2 PROJECT OVERVIEW

Transport for NSW (formerly Roads and Maritime Services) was granted approval by the Minister for Planning under Section 115ZB of the Environmental Planning and Assessment Act 1979 (EP&A Act) for the construction and operation of a multi-lane tolled motorway linking the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills in northern Sydney (the project). The project is located within The Hills, Hornsby and Ku-ring-gai local government areas about 20 kilometres north-west of the central business district of Sydney.

Key features of the project include:

- Twin motorway tunnels up to around nine kilometres in length with two lanes in each direction. The tunnel would be constructed with provision for a possible third lane in each direction if required in the future;
- A northern interchange with the M1 Pacific Motorway and Pennant Hills Road, including sections of tunnel for on-ramps and off-ramps, which also facilitate access to and from the Pacific Highway;
- A southern interchange with the Hills M2 Motorway and Pennant Hills Road, including sections of tunnel for on-ramps and off-ramps;
- Integration works with the Hills M2 Motorway including alterations to the eastbound carriageway to accommodate traffic leaving the Hills M2 Motorway to connect to the project travelling northbound and the provision of a new westbound lane on the Hills M2 Motorway extending through to the Windsor Road off ramps;
- Tie-in works with the M1 Pacific Motorway extending to the north of Edgeworth David Avenue.
- A motorway operation complex located near the southern interchange on the corner of Eaton Road and Pennant Hills Road that includes operation and maintenance facilities (Southern Compound);
- Ventilation facilities (Northern and Southern Compounds);
- Two tunnel support facilities incorporating emergency smoke extraction outlets (Wilson and Trelawney);
- Ancillary facilities for motorway operation, such as electronic tolling facilities, signage, ventilation systems and fire and life safety systems including emergency evacuation infrastructure;
- Modifications to service utilities and associated works at surface roads near the two interchanges and operational ancillary facilities;
- Modifications to local roads, including widening of Eaton Road near the southern interchange, and repositioning of the Hewitt Avenue cul-de-sac near the northern interchange; and
- Ancillary temporary construction facilities and temporary works to facilitate the construction of the project.

### 2.1 Operation

#### 2.1.1 Hills M2 Integration Works

As part of the project, modifications to the Hills M2 Motorway were undertaken west of Pennant Hills Road to enable southbound traffic from the project to merge safely with existing westbound traffic on the motorway. These works extended for a distance of around 3.5 kilometres west of the Pennant Hills Road interchange until the existing Windsor Road off-ramp. This includes an additional westbound lane on the Hills M2 Motorway, widening of Yale Close Bridge and Darling Mill Creek Bridge and lengthening of Barclay Road overbridge.





Minor alterations have been included to allow eastbound traffic from the Hills M2 Motorway to leave the motorway and join the northbound carriageway of the project.

### **2.1.2 Southern Interchange**

The southern interchange is located near the intersection of the Hills M2 Motorway / Pennant Hills Road at Carlingford. The interchange provides connections to and from the project with the Hills M2 Motorway and Pennant Hills Road. Existing movements catered for at the Hills M2 Motorway intersection with Pennant Hills Road have been maintained.

Portals to the northbound on-ramp and southbound off-ramp along Pennant Hills Road are located south of Eaton Road. The main alignment tunnel portals emerge adjacent to the shoulders of the Hills M2 Motorway to the west of Pennant Hills Road.

### **2.1.3 Main Tunnels and On- & Off-Ramps (in Tunnel)**

The main alignment tunnels consist of twin motorway tunnels around nine kilometres in length with separate northbound and southbound carriageway tunnels. On- and off-ramps provide connections to the surface roads at the southern and northern interchanges.

The tunnel depth varies depending on the geological conditions, and the tunnel crown (top of tunnel) varies up to a maximum depth of around 90 metres below ground with shallower sections approaching the portals.

### **2.1.4 Tunnel Support Facilities**

Two tunnel support facilities are provided at Wilson Road, Pennant Hills and Trelawney Street, Thornleigh. Each tunnel support facility includes an emergency smoke extraction facility. The tunnel support facility at Wilson Road also includes a Disaster Recovery Site.

### **2.1.5 Northern Interchange**

The northern interchange is located near the intersection of the M1 Pacific Motorway and Pennant Hills Road at Wahroonga, and provides connections to the M1 Pacific Motorway, Pennant Hills Road and the Pacific Highway. Portals to the southbound on-ramp and northbound off-ramp for Pennant Hills Road are located to the east of Pennant Hills Road within the median of the Pennant Hills Road / M1 Pacific Motorway connector. The portals of the main alignment tunnels emerge in the shoulders of the M1 Pacific Motorway to the north of Alexandria Parade in the vicinity of Bareena Avenue, Wahroonga. Local road changes around the northern interchange also include the widening of Pennant Hills Road northbound (at Pearces Corner) to create a permanent additional right-turn lane onto the Pacific Highway.

### **2.1.6 The M1 Pacific Motorway Tie-In Works**

To provide connection to the project, modifications to the M1 Pacific Motorway beyond the northern interchange have been made. The works extend around 200 metres north of Edgeworth David Avenue in Wahroonga. Surface works along the M1 Pacific Motorway generally involved widening of the road surface for the merge and diverge to and from the main alignment tunnels.

## **2.1.7 Ventilation System & Facilities**

During operation, the ventilation system draws fresh air into the tunnels and emit air from within the tunnels via two ventilation facilities. During emergency conditions, depending on the location of the incident, the ventilation system extracts smoke from the tunnels which is emitted from one or more of the following locations:

- Southern ventilation facility located within the motorway operations complex.
- Wilson Road tunnel support facility, draws fresh air occasionally and extracts air during emergency only.
- Trelawney Street tunnel support facility, draws fresh air occasionally and extracts air during emergency only.
- Northern ventilation facility located primarily above the cut and cover section of the northbound main alignment near the connection with the M1 Pacific Motorway.
- Tunnel portals.

Jet fans are mounted in pairs throughout the tunnels, with each pair separated by a minimum linear distance of 90 metres. A total of 80 fans have been installed in the northbound tunnel and ramps and 60 fans have been installed in the southbound tunnel and ramps. The fans operate on an as-required basis to maintain in tunnel air quality requirements.

Each ventilation outlet facility consist of five axial fans. At full capacity, Northern and Southern ventilation outlet facility operate with four fans, with the fifth fan on standby. Each ventilation facility is around 15 metres in height, as measured from the ground level of the adjoining land.

Each tunnel support facility consists of four vertically mounted bi-directional axial fans. Emergency smoke extraction and normal mode requirements are achieved with three fans, with the fourth fan on standby. During low speed traffic / congested conditions, the tunnel support can be used to supply additional fresh air to the tunnels.

## **2.1.8 Motorway Operations Complex**

The project involved construction and operation of a 24-hour manned Motorway Operations Complex (MOC), located near the southern interchange on the corner of Pennant Hills Road and Eaton Road, West Pennant Hills. The MOC includes facilities necessary for the monitoring, maintenance and control of tunnel services including tunnel safety, ventilation, power, lighting and other road systems required for the safe and efficient operation of the main alignment tunnels. Facilities include a tunnel control room, training / incident response room, workshop space, emergency vehicle depot, garage, storage and parking facilities.

## **2.1.9 Coral Tree Drive Sub Station**

Electricity supply infrastructure were installed to supply power to the main alignment tunnels and associated mechanical and electrical equipment on the south-west side of the Pennant Hills Road / Hills M2 Motorway interchange on Coral Tree Drive.

The general location and key features of the project are shown in **Figure 2-1**.

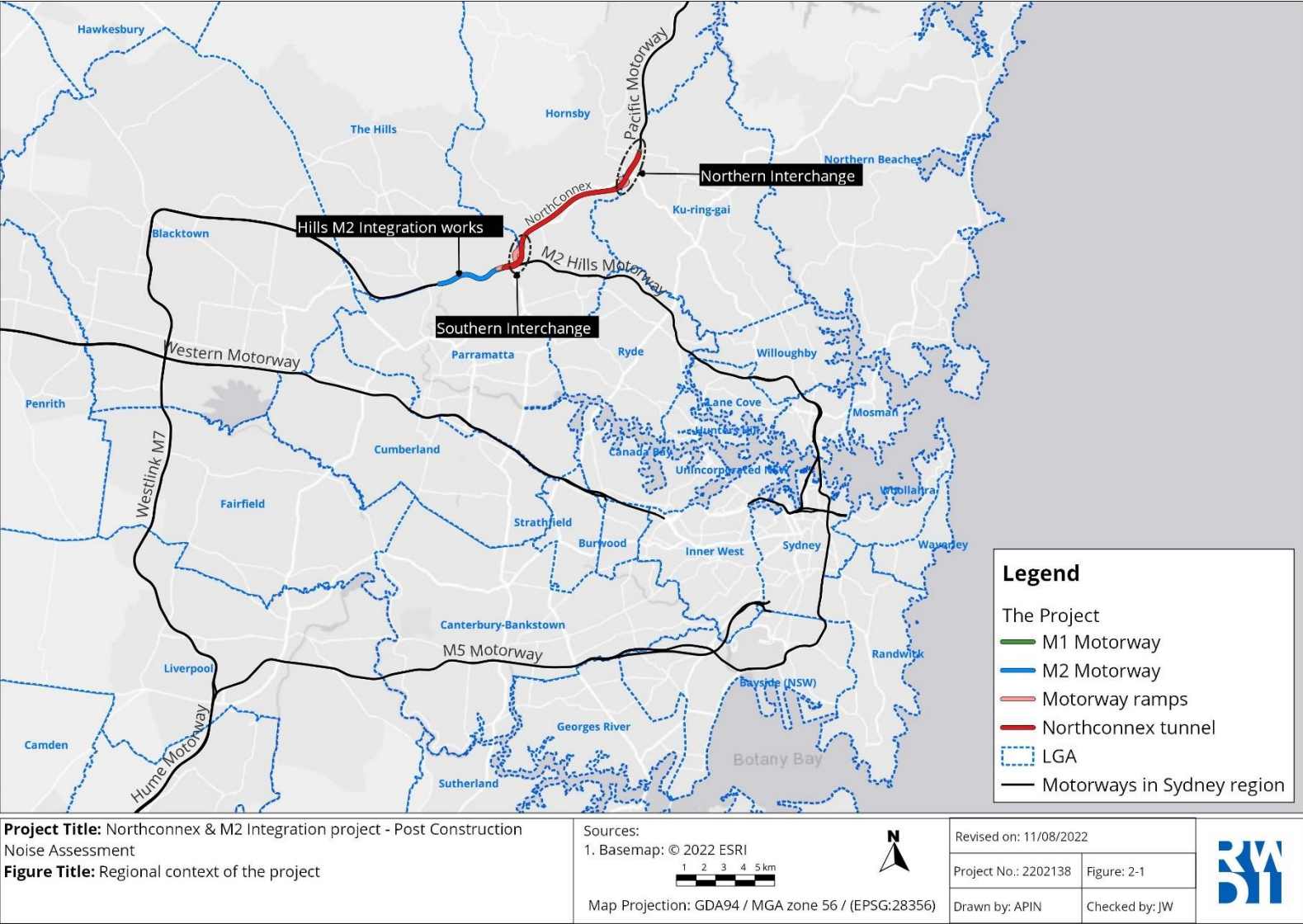


Figure 2-1 Regional Context of the Project

STUDY TYPE: POST CONSTRUCTION OPERATIONAL COMPLIANCE NOISE ASSESSMENT  
NCX & M2 INTEGRATION PCNA

RWDI#2202138  
9 September 2022

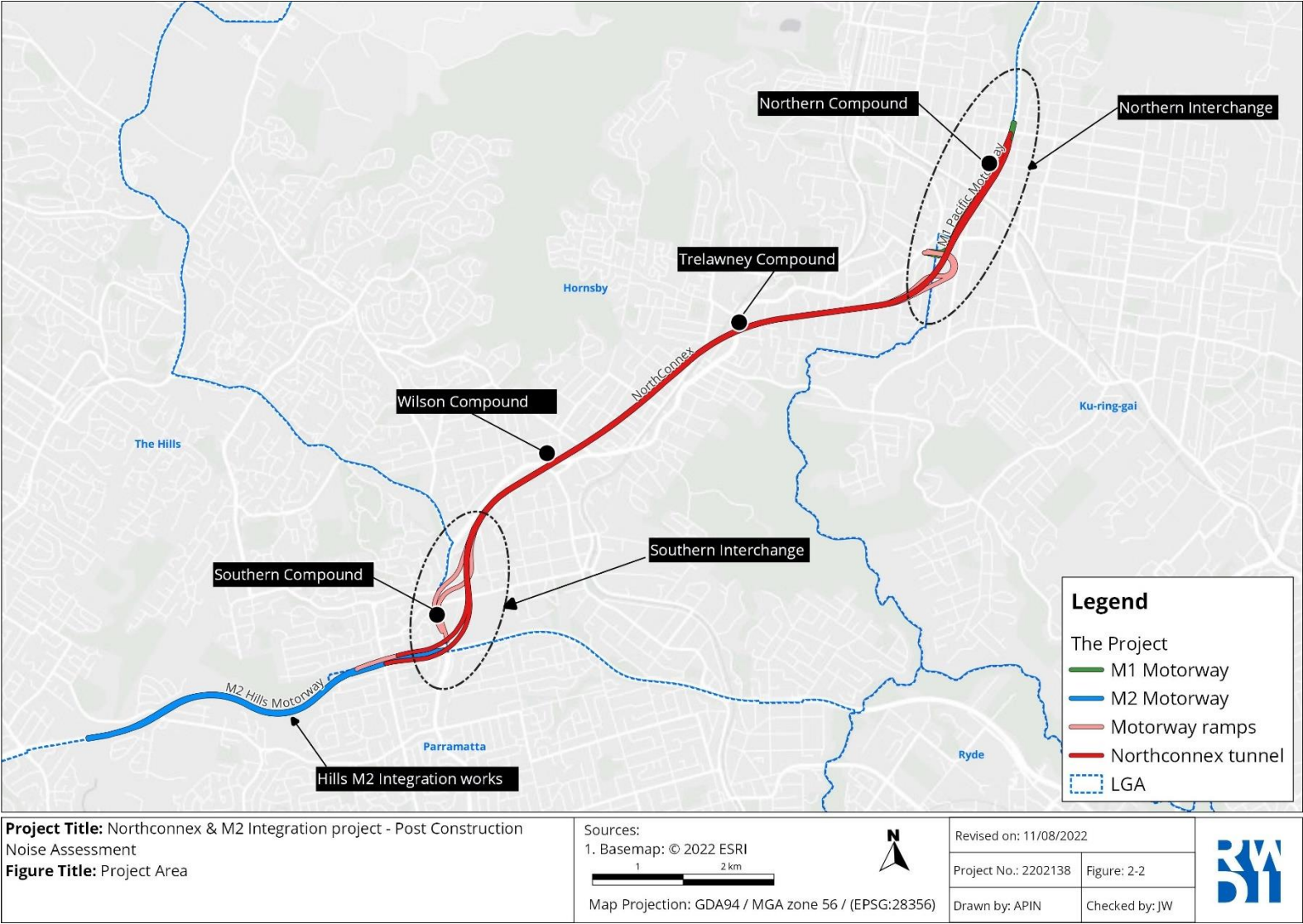


Figure 2-2 Project Area

## 3 ENVIRONMENTAL OBLIGATIONS

This section summarises the legal, environmental, and contractual obligations covered by this PCNA.

### 3.1 Statutory Obligations

#### 3.1.1 Ministerial Conditions of approval

The Conditions of Approval E25 and E26 are specific to this report. A summary of the CoA relevant to noise and vibration are presented in **Table 3-1**.

**Table 3-1: Conditions of approval**

Condition		Where addressed
<b>E23</b>	The Proponent shall design and operate all fixed facilities, including the northern and southern tunnel portals; northern and southern ventilation facilities; the Motorway Operations Complex; the Trelawney Street and Wilson Road emergency smoke extraction outlets and the Coral Tree Drive switching station, with the objective of not exceeding the requirements of the NSW Industrial Noise Policy (EPA 2000) and the Sleep Disturbance Application Note to the Industrial Noise Policy (DEC 2007). The Proponent shall apply mitigation at existing receivers where the noise requirements cannot be achieved.	RWDI (Wilkinson Murray) Operational Noise Assessment Report (ONAR) report (reference: 13245-O Ver J)
<b>E24</b>	A detailed Operational Noise Management Plan shall be prepared as part of the OEMP, to the satisfaction of the Secretary. The Plan shall provide details of noise and vibration control measures to be undertaken during the operation stages, sufficient to address the technical requirements of the EPA, and generally in accordance with the Road Noise Policy (DECCW 2011) and the Industrial Noise Policy (EPA 2000). The Plan shall include, but not be limited to:	RWDI (Wilkinson Murray) Operational Noise Management Plan (ONMP) report (reference:13245-OM Ver C)
	a) tests for ascertaining acoustic parameters;	RWDI (Wilkinson Murray) Operational Noise Assessment Report (ONAR) report (reference: 13245-O Ver J) in Appendix F
	b) predicted noise levels;	
	c) noise criteria for operation of the project;	RWDI (Wilkinson Murray) ONAR report (reference: 13245-O Ver J) & summary of the relevant criteria is outlined in Appendix B
	d) location, type and timing of erection of permanent noise barriers and/or other noise mitigation measures demonstrating best practice including silencers and building treatments for associated plant rooms and enclosures for exposed plant;	RWDI (Wilkinson Murray) ONAR report (reference: 13245-O Ver J) Noise Barrier Details: Section 6.9.1 & 6.9.2 Architectural Treatment: Section 6.10 & Appendix F & G



	Condition	Where addressed
	<p>e) specific physical and managerial measures for controlling noise; and,</p> <p>f) noise monitoring, reporting and response procedures including the monitoring on surrounding roads which experience significantly increased traffic volumes as a result of the project, including but not limited to North Rocks Road.</p>	<p>Mechanical Noise: Appendix K                      Building Treatment: Appendix K                      Summary of the treatments are also found in Appendix A of the RWDI (Wilkinson Murray Operational Noise Management Plan (ONMP) report (reference:13245-OM Ver C).</p> <p>Section 5 of the RWDI (Wilkinson Murray) ONMP report (reference:13245-OM Ver C)</p> <p>Section 6 of the RWDI (Wilkinson Murray) ONMP report (reference:13245-OM Ver C) outlines the procedures to undertake the monitoring assessments</p>
<b>E25</b>	<p>For the purpose of assessment of noise criteria specified in the Operational Noise Management Plan required under condition E24, noise from the development shall be:</p> <ul style="list-style-type: none"> <li>a) measured at the most affected point on or within the site boundary at the most sensitive locations to determine compliance with <math>L_{Aeq,T}</math> noise limits;</li> <li>b) measured in the free field at least three to five metres from any vertical reflecting surface in line with the worst-affected dwelling facade to determine compliance with <math>L_{Amax}</math> noise limits; and</li> <li>c) subject to the modification factors provided in Section 4 of the NSW Industrial Noise Policy (EPA 2000), where applicable</li> </ul> <p>Notwithstanding, should direct measurement of noise from the fixed facilities be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the EPA [refer to Section 11 of the NSW Industrial Noise Policy (EPA 2000)]. Details of such an alternative noise assessment method accepted by the EPA shall be submitted to the Secretary prior to the implementation of the assessment method.</p>	<p>This report<sup>1</sup></p>
<b>E26</b>	<p>Monitoring of operational noise shall be undertaken in accordance with the Operational Noise Management Plan. The Proponent shall, in consultation with the EPA, assess the adequacy of the traffic noise and ventilation noise mitigation measures within one year of operation, with regard to the criteria specified in the Operational Noise Management Plan. Should assessment indicate a clear trend in traffic noise levels on surrounding roads which exceed Operational Noise Management Plan defined noise criteria as approved by the EPA, the</p>	<p>This report<sup>1</sup></p>

Condition	Where addressed
Proponent shall implement further reasonable and feasible mitigation measures in consultation with affected landowners and/or occupiers.	

Note 1 This report does not address mechanical ventilation noise

### 3.1.2 Legislation

The following legislation is relevant to the project.

**Table 3-2 Legal Obligations**

Legislation	Relevance
<b>General</b>	
<b><i>Environmental Planning &amp; Assessment Act 1979</i></b>	Application of penalty notices where MCoA are breached including noise exceedances and complaints
<b><i>Local Government Act 1993</i></b>	Prevention of public nuisance from noise pollution
<b>Noise &amp; Vibration</b>	
<b><i>Protection of the Environment Act 1997</i></b> <b>Protection of the Environment (Noise Control) Regulation 2008 (as amended)</b>	<ul style="list-style-type: none"> <li>• Defines and controls noise pollution</li> <li>• Noise and vibration management</li> <li>• Regulates vehicle emissions including exhaust noise and car alarms</li> </ul>

## 3.2 Other Obligations

### 3.2.1 Environmental Policies, Guidelines & Principles

Transport for NSW (TfNSW) and other Government agencies have developed guidance and policy for managing noise and vibration. The O&M Stakeholders will work under this guidance and policy. **Table 3-3** outlines the policies and guidelines relevant to the assessment of road traffic noise.

**Table 3-3 Environmental Policies, Guidelines & Principles**

Legislation	Relevance
<b>Road traffic noise</b>	
<ul style="list-style-type: none"> <li>• <i>Environmental Noise Management Manual (ENMM), Practice Note II and III (ENMM, TfNSW, 2001)</i></li> <li>• <i>Road Noise Policy (RNP, NSW DECCW, 2011)</i></li> <li>• <i>Noise Criteria Guidelines (NCG, TfNSW, 2015)</i></li> <li>• <i>Noise Mitigation Guidelines (NMG, TfNSW, 2015)</i></li> <li>• <i>TfNSW Model Validation Guideline (2018)</i></li> </ul>	Compliance test of road traffic noise

Note: The NCG (TfNSW, 2015) are TfNSW's interpretation of the RNP (NSW DECCW, 2011). The NCG, NMG and MVG replace the ENMM (TfNSW, 2001) except for Practice Note II and III.

## 4 NOISE LEVEL OBJECTIVES

### 4.1 Road Noise Policy

The EPA's *Road Noise Policy* (RNP) sets out criteria for assessment of noise from vehicles on public roads for *freeways*, *arterial*, *sub-arterial* and *local roads*. The highway and all associated ramps are considered to be in the *freeways* category.

Under the RNP, road projects are classified as either **new road** or **redevelopment of an existing road**. As discussed in the EIS, the *redeveloped road* criterion has been applied to the project for the following reasons:

- Receivers along the Hills M2 Motorway, M1 Pacific Motorway, Pacific Highway and Pennant Hills Road are subject to existing road traffic noise and works fall within the existing road corridor; and
- While the subterranean tunnel would be considered a new road, traffic noise from the tunnel would be effectively attenuated at nearby sensitive receivers with the exception of the areas around the southern and northern portals. However, receivers in the vicinity of the portals have an existing road traffic noise exposure and therefore the redeveloped road criteria will apply in accordance with the RNP.

### 4.2 Assessment Timeframe

For road redevelopment projects, the RNP requires assessment in two timeframes:

**Timeframe 1:** within one year of changed traffic conditions. This is generally referred to as the Opening Year, which in this case is year 2019.

**Timeframe 2:** a design year, typically 10 years after changed traffic conditions. This is generally referred to as the Design Year, which in this case is 2029.

For each timeframe the RNP requires comparison between:

- the road traffic noise levels if the project proceeds (termed the **build** option).
- the corresponding road traffic noise levels, due to general traffic growth, that would have occurred if the project had not proceeded (termed the **no build** option).

### 4.3 Noise Criteria for Residential Land Use

For residential receivers, the RNP sets two forms of noise criteria, defined as **Noise Assessment Criteria** and **Relative Increase Criteria**. The applicable criteria for existent residences affected by noise from redevelopment of existing freeway/arterial/sub-arterial roads are given in **Table 4-1**. The Relative Increase Criteria are primarily intended to protect existing quiet areas from excessive changes in amenity due to noise from additional traffic. Quiet areas are areas where existing traffic noise levels are 12dB or more below the relevant Noise Assessment Criterion. Because this is not the case for any of the receivers considered in this project, the Noise Assessment Criteria are the most stringent criteria to be applied in this assessment and are referred to as the **base** criteria.



**Table 4-1 RNP Criteria for Redevelopment of Freeways**

Criteria	Time Period	
	Day (7am-10pm)	Night (10pm-7am)
<b>Noise Assessment Criteria</b>	$L_{Aeq,15hr}$ 60dBA (external)	$L_{Aeq,9hr}$ 55dBA (external)
<b>Relative Increase Criteria</b>	Existing traffic $L_{Aeq,15hr} + 12dB$ (external)	Existing traffic $L_{Aeq,9hr} + 12dB$ (external)

## 4.4 Noise Criteria for Non-Residential Noise-Sensitive Receivers

Several non-residential noise-sensitive receivers were identified within the study area. Section 2.3.2 of the RNP defines different criteria for non-residential land uses than those specified for residential land use. The applicable noise criteria are provided in **Table 4-2**.

**Table 4-2 Assessment Criteria for Operational Traffic Noise – Non-Residential Receivers**

Existing Sensitive Land Use	Assessment Criteria –dBA		
	Day (7am-10pm)	Night (10pm-7am)	Additional Considerations
<b>1. School classrooms</b>	$L_{Aeq,1hr}$ 40 (internal) * when in use	-	In the case of buildings used for education or health care, noise level criteria for spaces other than classrooms and wards may be obtained by interpolation from the 'maximum' levels shown in Australian Standard 2107:2016 (Standards Australia 2000)
<b>2. Hospital wards</b>	$L_{Aeq,1hr}$ 35 (internal) *	$L_{Aeq,1hr}$ 35 (internal) *	
<b>3. Places of worship</b>	$L_{Aeq,1hr}$ 40 (internal) *	$L_{Aeq,1hr}$ 40 (internal) *	<p>The criteria are internal, i.e. the inside of a church. Areas outside the place of worship, such as a churchyard or cemetery, may also be a place of worship. Therefore, in determining appropriate criteria for such external areas, it should be established what in these areas may be affected by road traffic noise.</p> <p>For example, if there is a church car park between a church and the road, compliance with the internal criteria inside the church may be sufficient. If, however, there are areas between the church and the road where outdoor services may take place such as weddings and funerals, external criteria for these areas are appropriate.</p> <p>As issues such as speech intelligibility may be a consideration in these cases, the passive recreation</p>

Existing Sensitive Land Use	Assessment Criteria –dBA		
	Day (7am-10pm)	Night (10pm-7am)	Additional Considerations
			criteria (see row 5 Open space (passive use) of this table) may be applied.
<b>4. Open space (active use)</b>	L <sub>Aeq,15hr</sub> 60 (external) when in use	-	Active recreation is characterised by sporting activities and activities which generate their own noise or focus for participants, making them less sensitive to external noise intrusion. Passive recreation is characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, eg. playing chess, reading.
<b>5. Open space (passive use)</b>	L <sub>Aeq,15hr</sub> 55 (external) when in use	-	In determining whether areas are used for active or passive recreation, the type of activity that occurs in that area and its sensitivity to noise intrusion should be established. For areas where there may be a mix of passive and active recreation, eg. school playgrounds, the more stringent criteria apply. Open space may also be used as a buffer zone for more sensitive land uses.
<b>6. Childcare facilities</b>	Sleeping rooms L <sub>Aeq,1hr</sub> 35 (internal) * Indoor play areas L <sub>Aeq,1hr</sub> 40 (internal) * Outdoor play areas L <sub>Aeq,1hr</sub> 55 (external)	-	Multi-purpose spaces, eg. shared indoor play / sleeping rooms should meet the lower of the respective criteria. Measurements for sleeping rooms should be taken during designated sleeping times for the facility, or if these are not known, during the highest hourly traffic noise level during the opening hours of the facility.
<b>7. Aged Care facilities</b>	-	-	Residential land use noise assessment criteria should be applied to these facilities.

Note \* The noise criteria applies for internal noise measurement.

Commercial receivers are not considered noise-sensitive receivers and therefore are not assessed for operational noise impacts.

Internal noise levels refer to the noise level at the centre of the habitable room that is most exposed to the traffic noise with openable windows being opened sufficiently to provide adequate ventilation [Refer to the Building Code of Australia (Australian Building Codes Board 2019) for additional information]. To predict internal noise levels, it is assumed that internal noise is 10dBA less than external noise. This is based on a façade facing the road with windows open for ventilation. This is a conservative and standard practice as it is likely that the structure of the building will provide a noise reduction greater than 10dB.

## 4.5 Noise Model Validation Guideline

The TfNSW document Noise Model Validation Guideline (NMVG) has procedures for assessing operational noise in its Chapter 6 – Post Construction Operational Compliance. The procedures are summarised below:

- Do simultaneous post construction traffic and noise logging.
- If noise is measured at most receivers, compliance can be determined by measurement.
- If noise cannot be measured at most receivers, measurements should be supplemented by noise modelling. The procedure for this step is:

### UPDATE DETAILED DESIGN MODEL TO PRODUCE THE POST CONSTRUCTION COMPLIANCE NOISE MODEL

The detailed design model should be updated to produce the post construction compliance noise model. As a first step, updates should include any differences between the **for construction** drawings and the **as built** road and also the traffic parameters such as volume, speed and heavy vehicle mix encountered during the post construction noise logging.

### VALIDATION OF THE POST CONSTRUCTION NOISE MODEL

This updated noise model should be validated against the post construction noise logging results using the same software as the detailed design. Where it can be strongly justified, the application of noise calibration may be required. As discussed in the NMVG, it is important to note that the predicted levels should generally not be lower than the measured levels.

### UPDATE THE DETAILED DESIGN MODEL WITH THE VALIDATED POST CONSTRUCTION NOISE MODEL

The next step is to review the post construction traffic and confirm that it is not significantly different from that predicted at detailed design. If the detailed design traffic parameters are not significantly different from the opening traffic parameters, then the detailed design traffic parameters for the design year should be inputted into the validated post construction compliance noise model.

- *Where the validated noise model predicts a noise level at a receiver that is more than 2dBA higher than the detailed design predicted noise level, mitigation should be re-evaluated for that receiver.*
- *Where traffic parameters are significantly different from those used in detailed design and result in higher noise levels, then all NMG mitigation triggers and noise mitigation identified in detailed design should be re-evaluated.*

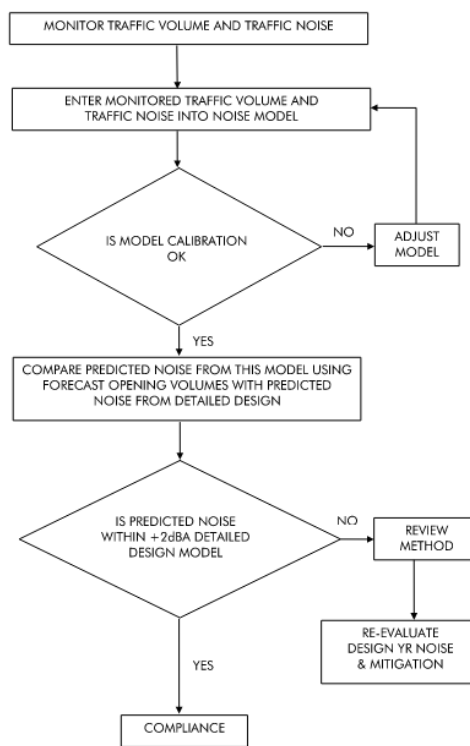
The above procedure is summarised in the flow chart obtained from Annexure B of the *Procedure for preparing a post construction noise assessment report, May 2017* by TfNSW in **Figure 4-1** and described below:

A comparison of the predicted noise from the post construction noise model at the monitored locations using forecast opening volumes is to be made with the predicted noise from the detailed design noise report. The PCNA procedure outlines how exceedances should be addressed.

*Where post construction data indicates an exceedance of predicted noise levels:*

- *Where post construction levels exceed predicted design year levels by less than 2 dBA: data should be examined and the prediction methodology and suitability of mitigation measures should be reassessed. Reasons for discrepancy should be identified and reported on.*
- *Where post construction levels exceed predicted design year levels by more than 2 dBA: the adequacy of*

*mitigation measures must be reviewed and identified problems should be rectified. Additional treatments may be required where assessed to be feasible and reasonable.*



**Figure 4-1: The Noise Modelling Process for PCNA (source: TfNSW)**

## 4.6 Guidance on Feasible & Reasonable Mitigation

The RNP states that “in assessing feasible and reasonable mitigation measures, an increase of up to 2 dB represents a minor impact that is considered barely perceptible to the average person”.

The TfNSW Noise Mitigation Guideline (NMG) provides guidance in managing and controlling road traffic noise and describes the principles to be applied when reviewing noise mitigation.

The NMG provides further discussion of situations where provision of additional controls would be considered *feasible* and *reasonable*, such as noise mitigation in the form of noise barriers, architectural treatment and quieter pavement. The NMG provides three triggers where a receiver may qualify for consideration of noise mitigation. These are:

**Trigger 1:** Where the total noise level for the ‘build’ year exceeds the controlling criterion established using the NCG, and there is an increase of more than 2.0dBA (i.e. 2.1dBA or greater), relative to the ‘no-build’ year, then a receiver qualifies for consideration of noise mitigation. This includes the situation where the ‘no-build’ noise level is below the criterion value. A receiver may also qualify for consideration of noise mitigation where the NCG criterion is exceeded with the project and the noise increase from the project is less than 2.0dBA.

**Trigger 2:** When the total noise level in the build year is 5dBA or more above the NCG criterion it is considered to have exceeded the cumulative limit. Receivers where the exceedance occurs qualify for consideration of noise mitigation.

**Trigger 3:** A receiver with noise levels at or above 65dBA  $L_{Aeq, 15 hr}$  and 60dBA  $L_{Aeq, 9 hr}$  may be referred to as acute. If the contribution from the road project is acute then the receiver qualifies for consideration of noise mitigation.

## 5 NOISE CACHEMENT AREAS

Noise catchment areas (NCAs) are areas where receivers have a similar land use and ambient noise environment. Noise-sensitive receivers include residences, schools, places of worship or health care institutions. The choice of the NCAs are based on factors including geographical location, level of noise exposure and location of the ambient noise monitoring.

The Noise Catchment Areas (NCA's) for this PCNA have been referred from the baseline information report 13245-CD-3 version L and are presented in table **Table 5-1** below and are shown in **Figure 5-1**. Details of residence numbering are presented in **Appendix A**.

**Table 5-1 Noise Catchment Areas**

NCA's	Description
NCA-1A	West of M1 <sup>1</sup>
NCA-1B	
NCA-1C	
NCA-1D	
NCA-2A	East of M1 <sup>1</sup>
NCA-2B	
NCA-2C	
NCA-2D	
NCA-3	West of Pennant Hills Rd at intersections with M1 & Pacific Hwy
NCA-4A	Cam St to Junction of M1 with Pennant Hills Rd
NCA-4B	
NCA-5A	South east of junction of Pennant Hills Rd & M1
NCA-5B	
NCA-6A	Around Trelawney Pioneer Compounds
NCA-6B	
NCA-6C	
NCA-7A	Around Wilson Compound
NCA-7B	
NCA-7C	
NCA-8A	North of Southern Compound
NCA-8B	
NCA-9A	South-west of Pennant Hills Rd & M2 junction
NCA-9B	

NCA's	Description
NCA-10A	West of junction of M2 & Pennant Hills Rd
NCA-10B	
NCA-10C	
NCA-10D	
NCA-11A	M2 from Oakes Rd to North Rocks Rd
NCA-11B	
NCA-12	South of M2 from North Rocks Rd to Barclay Rd
NCA-13	North of M2 along Mill Dr
NCA-14	South of M2 from Barclay Rd to Hancey Ave
NCA-15A	M2 from Dremeday St to Canyon St
NCA-15B	

Note 1: In-line with the design phase of the project, the extent of these NCA's are limited to no greater than 200 m beyond the physical extent of the NCx works. The following has been applied:

- **West of M1 Motorway**: Receivers to the South of Boundary Road are considered in the study
- **East of the M1 Motorway**: Receivers to the South of Burdett Street are considered in the study

Table 5-2 and Table 5-3 list the non-residential noise-sensitive receivers considered in this assessment.

**Table 5-2 NorthConnex Northern Non-Residential Noise-Sensitive Receivers**

ID	NCA	Address	Type
NR-5	1C	1711 Pacific Highway	School
NR-14	5C	1711 Pacific Highway	Place of Worship

**Table 5-3 NorthConnex Southern & M2 Integration Non-Residential Noise-Sensitive Receivers**

ID	NCA	Address	Type
NR-101	10B	41-43 Eaton Road	Church
NR-102	11B	365 North Rocks Road	School: RIDBC
NR-103	11B	365 North Rocks Road	School: RIDBC
NR-104	11B	365 North Rocks Road	School: RIDBC
NR-105	11B	365 North Rocks Road	School: RIDBC
NR-106	11B	365 North Rocks Road	School: RIDBC
NR-107	11B	365 North Rocks Road	School: RIDBC
NR-108	11B	365 North Rocks Road	School: RIDBC
NR-109	11B	365 North Rocks Road	School: RIDBC



ID	NCA	Address	Type
<b>NR-110</b>	11B	365 North Rocks Road	School: RIDBC
<b>NR-111</b>	11B	365 North Rocks Road	School: RIDBC
<b>NR-112</b>	11B	365 North Rocks Road	School: RIDBC
<b>NR-113</b>	11B	365 North Rocks Road	School: RIDBC
<b>NR-114</b>	12	9-13 Barclay Road	Muirfield High School
<b>NR-115</b>	12	9-13 Barclay Road	Muirfield High School
<b>NR-116</b>	12	9-13 Barclay Road	Muirfield High School
<b>NR-117</b>	11B	2-12 Carmen Drive	Commercial
<b>NR-118</b>	10D	60 Oakes Road	Dental Surgery (Commercial)
<b>NR-119</b>	10D	58 Oakes Road	Dental Surgery (Commercial)
<b>NR-120</b>	11B	1 Carmen Drive	Doctor Surgery (Commercial)
<b>NR-121</b>	11B	14-20 Carmen Drive	Commercial
<b>NR-122</b>	11B	Murray Farm Road	Active: Murray Farm Reserve

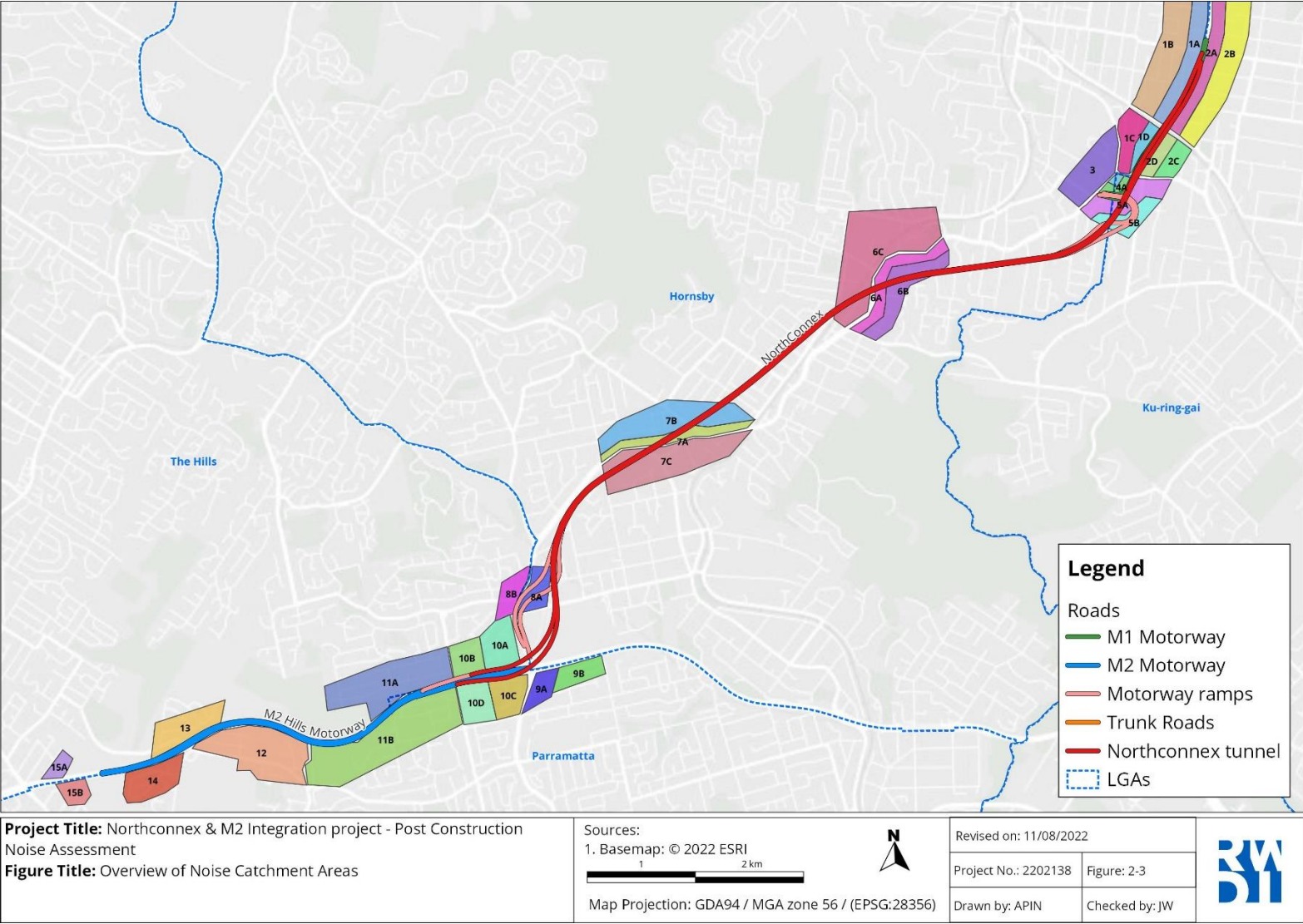


Figure 5-1 Noise Catchment Areas



## 6 NOISE MONITORING

### 6.1 Unattended Noise Monitoring

#### 6.1.1 Monitoring locations

Noise measurements of the post operational traffic were conducted to characterise the post operational noise environment and to validate the traffic noise model. Unattended noise monitoring was conducted between 25<sup>th</sup> May and 7<sup>th</sup> June 2022 at 10 locations; 4 locations are located in the northern section of the project while 6 locations are located in the southern section of the project. The monitoring period was considered representative for the purposes of the assessments and did not include any school holidays or public holidays. Consistent with the environmental impact statement and detailed design processes, the noise monitoring and traffic count periods were based on an entire 7-day period of a week.

Where possible the unattended noise monitoring locations were chosen to be the same as that used in the design stages of the project (RWDI Wilkinson Murray report No. 13245-CD-3 *Noise & vibration Baseline Information in response to CoA D9* Version L) to enable direct comparison of noise levels before and after the construction of the project. ). Where those locations were not available, the nearest available residence was used as the monitoring location. One of the location chosen was a noise complaint location as there was a noise complaint raised by the resident specifically about Northconnex traffic noise.

It is noted that during the design phase, unattended noise monitoring locations were selected based on a detailed inspection of potentially affected areas, giving consideration to other noise sources which may adversely influence the measurements, security issues for the noise monitoring devices and gaining permission for access from the residents or landowner.

With regard to the naming convention for receivers, a suffix 'a' has been used for the receiver ID if the noise monitoring location has moved once since the original noise monitoring.

**Table 6-1 Noise monitoring locations**

Logging for baseline report D9 /ONMAR					Logging for PCNA (2022)						New or Same Location
ID	NCA	Address	Measurement period	Installation position	ID	NCA	Address	Measurement period	Installation position	Setback distance to edge of road <sup>1</sup> (m)	
<b>NCA-1A-T1</b>	1A	45 Bareena Avenue, Wahroonga	18/3/15-1/4/15	Façade	<b>NCA-1A-T1a</b>	1A	1/43A Bareena Avenue, Wahroonga	25/5/22-7/6/22	Free Field	31	New <sup>2</sup>
<b>NCA-2A-T2</b>	2A	118A Coonanbarra Road, Wahroonga	18/3/15-1/4/15	Façade	<b>NCA-2A-T2</b>	2A	118A Coonanbarra Road, Wahroonga	25/5/22-31/5/22	Façade	67	Same
<b>NCA-2D-T3</b>	2D	22 Woonona Avenue South, Wahroonga	18/3/15-1/4/15	Façade	<b>NCA-2D-T3</b>	2D	22 Woonona Avenue, Wahroonga	25/5/22-7/6/22	façade	27	Same
<b>NCA-3-T4</b>	3	10 Pennant Hills Road, Wahroonga	3/3/15-11/3/15	Façade	<b>NCA-3-T4a</b>	3	52 Russell Avenue, Wahroonga	25/5/22-31/5/22	Façade	8	New <sup>3</sup>
<b>NCA-10B-B15</b>	10B	3 Mundon Place, West Pennant Hills	16/3/15-25/3/15	Free field	<b>NCA-10B-B15</b>	10B	3 Mundon Place, West Pennant Hills	25/5/22-7/6/22	Free Field	33	Same
-	-	-	-	-	<b>NCA-10C-2238</b>	10C	Noise Compliant Location	25/5/22-6/6/22	Free Field	35	New <sup>4</sup>
<b>NCA-10D-B17</b>	10D	58 Oakes Road, North Rocks	2/3/15-10/3/15	Free field	<b>NCA-10D-B17</b>	10D	58 Oakes Road, Carlingford	25/5/22-7/6/22	Free Field	85	Same <sup>5</sup>
<b>NCA-11B-T11</b>	11B	66 Carmen Drive, North Rocks	28/4/15-19/5/15	Façade	<b>NCA-11B-T11</b>	11B	66 Carmen Drive, Carlingford	25/5/22-7/6/22	Free Field	106	Same <sup>6</sup>

**STUDY TYPE: POST CONSTRUCTION OPERATIONAL COMPLIANCE NOISE ASSESSMENT**  
**NCX & M2 INTEGRATION PCNA**

RWDI#2202138  
 9 September 2022



Logging for baseline report D9 /ONMAR					Logging for PCNA (2022)						New or Same Location
ID	NCA	Address	Measurement period	Installation position	ID	NCA	Address	Measurement period	Installation position	Setback distance to edge of road <sup>1</sup> (m)	
<b>NCA-13-T12</b>	13	122 Barclay Road, North Rocks	25/2/15-10/3/15	Façade	<b>NCA-13-T12</b>	13	122 Barclay Road, North Rocks	25/5/22-7/6/22	Free Field	25	Same
<b>NCA-14-T13</b>	14	25 Williams Road, North Rocks	25/2/15-10/3/15	Façade	<b>NCA-14-T13</b>	14	25 Williams Road, North Rocks	25/5/22-6/6/22	Free Field	22	Same <sup>7</sup>

- Note 1 The approximate shortest distance from the receiver point to the nearside carriage way of the closest motorway
- Note 2 Original location of monitoring is now a public park. Logger moved directly next door
- Note 3 Previous location is now a construction site. Logger moved to neighbouring residence across the road
- Note 4 Noise complainant location
- Note 5 Exact placement is different than previous due to a change in the landscape of the yard
- Note 6 Placement isn't identical to previous due to previous location being a reverb environment
- Note 7 Free Field in backyard. Not in the exact same location as previous monitoring due to mech noise in vicinity of the previous location

## 6.1.2 Noise monitoring equipment

The noise monitoring equipment used for these measurements consisted of environmental noise loggers set to A-weighted, fast response continuously monitoring over 15-minute sampling periods. This equipment is capable of remotely monitoring and storing noise level descriptors for later detailed analysis.

The logger determines  $L_{A1}$ ,  $L_{A10}$ ,  $L_{A90}$  and  $L_{Aeq}$  levels of the existing noise environment. The  $L_{A1}$ ,  $L_{A10}$  and  $L_{A90}$  levels are the levels exceeded for 1%, 10% and 90% of the sample time respectively. The  $L_{A1}$  is indicative of maximum noise levels due to individual noise events such as the occasional pass-by of a heavy vehicle. The  $L_{A90}$  level is normally taken as the background noise level. The  $L_{Aeq}$  level is the Equivalent Continuous Sound Level and has the same sound energy over the sampling period as the actual noise environment with its fluctuating sound levels. Whilst the  $L_{A10}$  has in the past been used as a descriptor for traffic noise, the  $L_{Aeq}$  is now the standard descriptor for traffic noise.

Where possible the measurements were conducted at a height of 1.5 m above ground and at a distance of 1 m from the building facade, in accordance with the NSW RNP (EPA, 2011). Measurements done in free field, that is unaffected by building facades, are noted in the results tables and a +2.5 dBA façade reflection correction has been added to these monitoring results. Serial numbers of all noise monitors are presented in **Table 6-2**. All loggers were calibrated at the start and end of the monitoring period and no significant drift was noted. All loggers have been NATA calibrated.

**Table 6-2 Noise logger details**

ID	NCA	Address	LoggerMake	Logger SN
NCA-1A-T1	1A	1/43A Bareena Avenue, Wahroonga	Rion 52-EX	00876008
NCA-2A-T2	2A	118A Coonanbarra Road, Wahroonga	Rion 52-EX	01276557
NCA-2D-T3	2D	22 Woonona Avenue, Wahroonga	Rion 52-EX	00242768
NCA-3-T4	3	52 Russell Avenue, Wahroonga	Rion 52-EX	00743077
NCA-10B-B15	10B	3 Mundon Place, West Pennant Hills	ARL Ngara	8780F1
NCA-10C-2238	10C	Noise Compliant Location	ARL Ngara	8780FC
NCA-10D-B17	10D	58 Oakes Road, Carlingford	ARL Ngara	8780FA
NCA-11B-T11	11B	66 Carmen Drive, Carlingford	ARL Ngara	878094
NCA-13-T12	13	122 Barclay Road, North Rocks	ARL Ngara	8780F9
NCA-14-T13	14	25 Williams Road, North Rocks	ARL Ngara	878092

### 6.1.3 Data Exclusions

Noise loggers measure and store data on a continual basis, regardless of the surrounding noise environment. It is therefore necessary to scrutinise the data and make exclusions where appropriate. These exclusions have been made in the following circumstances:

- Meteorological conditions, where there is rainfall, or the wind speed is greater than 5 m/s
- When data appears erroneous, based on engineering judgement (for example passage of trains)

Raw data plots for all monitoring locations are presented in **Appendix C**. Excluded times are shown greyed out. More than seven days' valid data was collected at all locations.

## 6.2 Measured Traffic Noise $L_{Aeq,T}$ Levels

Following the collation of logger data, and exclusion of unwanted records, traffic noise levels were calculated. The daytime  $L_{Aeq, 15hr}$  and night time  $L_{Aeq, 9hr}$  noise descriptors were calculated for each date, for the entire duration of measurement. The logarithmic average of the daily measurements are tabulated below in **Table 6-3** for monitoring conducted in 2022. A +2.5 dB façade reflection correction has been added to noise monitors placed in free field as described in **Section 6.1.2**.

**Table 6-3: Traffic Noise Monitoring Results (Façade Corrected levels)**

ID	Address	Daytime $L_{Aeq, 15hr}$ dB	Night time $L_{Aeq, 9hr}$ dB
NCA-1A-T1	1/43A Bareena Avenue, Wahroonga	65	60
NCA-2A-T2	118A Coonanbarra Road, Wahroonga	57	54
NCA-2D-T3	22 Woonona Avenue, Wahroonga	57	54
NCA-3-T4	52 Russell Avenue, Wahroonga	61	59
NCA-10B-B15	3 Mundon Place, West Pennant Hills	55	50
NCA-10C-2238	Noise Complaint Location	60	56
NCA-10D-B17	58 Oakes Road, Carlingford	64	58
NCA-11B-T11	66 Carmen Drive, Carlingford	60	55
NCA-13-T12	122 Barclay Road, North Rocks	60	56
NCA-14-T13	25 Williams Road, North Rocks	62	59

Note Measured noise levels have been rounded to the nearest decimal places as per the *Road Noise Policy* (Appendix B2 – Rounding: noise levels must be rounded to the nearest integer and differences between two noise levels rounded to a single decimal place)

## 7 TRAFFIC VOLUMES

### 7.1 Traffic Counts for Validation Period

Traffic counts for the validation period were provided by Transurban between 25<sup>th</sup> May and 7<sup>th</sup> June 2022. The data provided were from toll collection points, and included light vehicle and heavy vehicle counts in 15 minute interval increments. The traffic data was analysed, corresponding to the noise measurement periods, where traffic data was available.

Data was not available for all sections of the project. For those sections, the historic traffic volumes for Q1 2022 were obtained from the [NSW toll road data website](#) and used for the noise model validation for those roads.

The 2022 traffic count data considered for the validation model are shown in **Table 7-1**.

**Table 7-1 2022 Traffic Count Summary – Average Daily Traffic (ADT)**

Location	Direction	Counts		Percentage HV		Average Daily Traffic
		Day	Night	Day	Night	
NorthConnex Northern						
M1 Motorway between PHR & Pacific Highway	NB	25748	3552	6.4%	13.4%	29300
	SB	18072	4731	5.9%	12.4%	22803
NCx - northern portal	NB	13499	1862	25.8%	44.1%	15361
	SB	17287	4526	26.3%	44.7%	21813
M1 Motorway to North of the NCx Northern portals	NB	39247	5414	14.9%	14.9%	44661
	SB	35359	9257	14.8%	14.8%	44616
NorthConnex Southern & M2 Integration						
M2 Northern Portals	NB	6810	833	10.2	32.1	7643
	SB	6937	918	10.2	28.2	7855
M2 Southern Portals	EB	9755	1611	19.4	37.9	11365
	WB	10373	1540	18.3	40.9	11913
PHR off-ramp from M2 <sup>1</sup>	EB	5276	841	4.9	20.2	6117
PHR on-ramp to M2 <sup>1</sup>	WB	5780	960	5.3	13.1	6740
M2 west of Pennant Hills Road including ramps but excluding M2 Southern Portals <sup>1</sup>	EB	39275	6746	5.2	9.4	46021
	WB	43661	4677	5.4	7.7	48339
M2 east of Pennant Hills Road including ramps <sup>1</sup>	EB	33999	5905	5.2	7.9	39904
	WB	37882	3717	5.5	6.3	41599

Note 1 Data obtained from NSW Road tolls website

## 7.2 Traffic volumes for Post Construction Noise model

There is a requirement in the Noise Model Validation Guideline as presented in **Section 4.5** to review the post construction traffic volume and confirm that it is not significantly different from that predicted at detailed design.

Comparison of the post construction traffic volumes in **Table 7-1** with the projected traffic volumes in the ONMAR and the EIS are considered generally consistent. The post construction traffic volumes are marginally higher than the opening year 2019 projections, however generally below the design year 2029 projections, with a maximum increase of 19 % compared to the opening year traffic volumes.

The projected detailed design traffic volumes (2019 and 2029) are considered to be not significantly different from the post construction traffic volumes. Hence the traffic volumes used previously in the ONMAR are also used in the PCNA, as presented in **Table 7-2** and **Table 7-3**.

**Table 7-2: Traffic Forecast for No Build Option (Year 2029) – Annual Average Daily Traffic (AADT)**

Name	Direction	Day (7am -10 pm)			Night (10 pm to 7 am)			AADT
		Light Vehicles	Heavy Vehicles	HV %	Light Vehicles	Heavy Vehicles	HV %	
NorthConnex Northern								
M1 underneath Pacific Highway	NB	17610	2962	14.4	2867	1096	27.7	24535
	SB	17230	3302	16.1	2804	1221	30.3	24557
M1 north of rail line	NB	37781	4161	9.9	6152	1539	20.0	49633
	SB	38831	5046	11.5	6322	1865	22.8	52064
PHR South of Edwards Road	NB	29227	3869	11.7	4758	1431	23.1	39285
	SB	30190	4551	13.1	4915	1683	25.5	41339
PHR between Edwards Road and Pacific Highway	NB	12657	957	7.0	2061	354	14.7	16029
	SB	14000	1301	8.5	2279	481	17.4	18061
NorthConnex Southern & M2 Integration								
M2 west of Pennant HillsRoad including ramps	EB	41809	5088	10.8	6806	1882	21.7	55585
	WB	38926	5566	12.5	6337	2059	24.5	52888
M2 east of Pennant HillsRoad including ramps	EB	38359	3608	8.6	6244	1334	17.6	49545
	WB	36301	4521	11.1	5911	1671	22.0	48404
PHR North of M2	NB	33454	5220	13.5	5446	1931	26.2	46051
	SB	36358	5246	12.6	5920	1941	24.7	49465
PHR South of M2	NB	25098	2344	8.5	4086	867	17.5	32395
	SB	29886	2915	8.9	4865	1078	18.1	38744

**Table 7-3: Traffic Forecast for Build Option (Year 2029) – Annual Average Daily Traffic (AADT)**

Name	Direction	Day (7am -10 pm)			Night (10 pm to 7 am)			AADT
		Light Vehicles	Heavy Vehicles	HV %	Light Vehicles	Heavy Vehicles	HV %	
NorthConnex Northern								
M1 Northern Portals	NB	8905	3092	25.8	1450	1143	44.1	14590
	SB	9451	3367	26.3	1539	1246	44.7	15603
M1 Southern Portals	EB	3399	263	7.2	553	97	14.9	4312
	WB	3893	447	10.3	634	166	20.8	5140
M1 underneath Pacific Highway	NB	15681	1104	6.6	2551	409	13.8	19745
	SB	14167	728	4.9	2306	269	10.4	17470
M1 north of rail line	NB	36891	2522	6.4	6004	932	13.4	46349
	SB	32409	2025	5.9	5276	749	12.4	40459
PHR South of Edwards Road	NB	30944	2180	6.6	5037	806	13.8	38967
	SB	24691	1853	7.0	4019	685	14.6	31248
PHR between Edwards Road and Pacific Highway	NB	19678	2042	9.4	3204	757	19.1	25681
	SB	14451	1906	11.7	2352	705	23.1	19414
NorthConnex Southern & M2 Integration								
M2 Northern Portals	NB	8270	1598	16.2	1346	592	30.5	11806
	SB	8797	2236	20.3	1432	827	36.6	13292
M2 Southern Portals	EB	4528	1941	30.0	737	718	49.3	7924
	WB	4053	1394	25.6	684	492	41.8	6623
M2 west of Pennant HillsRoad including ramps	EB	43550	3523	7.5	7089	1303	15.5	55465
	WB	40605	4224	9.4	6610	1562	19.1	53001
M2 east of Pennant HillsRoad including ramps	EB	37495	2984	7.4	6104	1103	15.3	47686
	WB	36836	3707	9.1	5996	1372	18.6	47911
PHR North of M2	NB	26351	2260	7.9	4290	836	16.3	33737
	SB	28747	2351	7.6	4680	869	15.7	36647
PHR South of M2	NB	17303	1525	8.1	2817	564	16.7	22209
	SB	31164	3037	8.9	5073	1123	18.1	40397



## 8 NOISE MODELLING

### 8.1 Purpose

Noise impact assessment and noise mitigation design are based on noise models of future situations. Confidence in the outcomes of those processes is increased by validation of the noise model by satisfactory prediction of the known existing situation. This is achieved by simultaneously measuring noise and undertaking traffic flow counts. If the noise model can predict the measured noise based on the measured traffic, it is considered *valid*.

The following noise models are referred to in this section:

- The detailed design noise model (Build & No Build option 2029)– used for mitigation design in the ONMAR (RWDI report13245-O Ver J 2019);
- The post construction validation noise model – the model based on counted traffic volumes during the monitoring period (this report **Section 8.3**).
- The post construction compliance noise model (also referred to as PCNA model)– the validated noise model including updated barrier and pavement surface information, used to verify that post operation noise is within appropriate limits.

The measured traffic noise levels for the project is described in **Table 6-3**. The traffic count data was generally collected at the same time as the noise monitoring was undertaken. The procedure for estimating the traffic data is described in **Section 7.1**.

### 8.2 Noise Modelling Procedures

Noise levels from the proposed road designs were calculated using procedures based on the *Calculation of Road Traffic Noise* (CoRTN, UK Department of Transport, 1988) prediction algorithms. The standard prediction procedures were modified as follows:

- $L_{Aeq}$  values were calculated from the  $L_{A10}$  values predicted by the CoRTN algorithms using the well-validated approximation  $L_{Aeq,1hr} = L_{A10,1hr} - 3$  (NSW RTA, 2001). It is worth noting the predicted  $L_{Aeq,1hr}$  is equivalent to the  $L_{Aeq,period}$  as required by the noise criteria since the input is the *average* traffic flow per hour over the given daytime and night time periods;
- Noise source heights were set at 0.5m for car engine, exhaust and tyre noise, 0.5m for heavy vehicle tyre noise, 1.5m for heavy vehicle engines and 3.6m for heavy vehicle exhausts, representative of typical values for Australian vehicles (*Road Traffic Noise: Interim Traffic Noise Policy*, 1992); and
- Noise from a heavy vehicle exhaust is assumed to be 8dBA lower than the (steady continuous) noise from the engine.

The following factors have been considered during the assessment process:

- Traffic volume and proportions of heavy vehicles;
- Vehicle speed;
- Road surface types;
- Road gradient;
- Different noise emission levels and source heights;

- Topographical information along and surrounding the project area;
- Location of potentially affected receivers; and
- Allocation of traffic to different lanes.

Note that although the Project opened for traffic in 2020, for consistency with the EIS and the ONMAR reports and also inline with the relevant policies and guidelines, the timeframes 2019-2029 have been used for the purposes of the PCNA. **Table 8-1** summarises other variables used in the noise model.

**Table 8-1 Variables used for Noise Modelling**

Parameter	Comment
Noise Model	The model was implemented in SoundPLAN software (Version 8.2) – CoRTN Australia (NSW)
Traffic Speed	<p><b>Existing roads:</b> traffic speeds have been based on posted road speeds. In particular, traffic speeds along M1 Pacific Motorway were gradually modified by 10km/h increments (60-110km/h range) whilst traffic speeds along M2 Hills Motorway were considered to be 100km/h.</p> <p><b>Proposed roads:</b> 80km/h has been considered for the new sections surrounding the tunnels.</p>
Road Surface	<p><b>VALIDATION NOISE MODEL:</b></p> <p><i>M1 Pacific Motorway:</i> open graded asphalt (OGA) on both northbound and southbound carriageways. Southbound carriageway consists of a very deteriorated surface. Corrections applied are -3.5dB below 100km/h and -4dB from 100km/h on northbound carriageway and -4dB on southbound carriageway.</p> <p><i>M2 Hills Motorway:</i> open graded asphalt (OGA) on both northbound and southbound carriageways. Corrections applied are -4dB.</p> <p><i>Other Roads:</i> dense graded asphalt (DGA). Corrections applied are -1dB below or equal to 75km/h and 0dB from 75km/h.</p> <p><b>POST CONSTRUCTION COMPLIANCE NOISE MODEL:</b></p> <p><b>No Build Option 2019-2029</b></p> <p><i>M1 Pacific Motorway:</i> it has been assumed that the road surface on the southbound carriageway would be resurfaced with OGA. Corrections applied are -3.5dB below 100km/h and -4dB from 100km/h on both northbound carriageways.</p> <p><i>M2 Hills Motorway:</i> open graded asphalt (OGA) on both northbound and southbound carriageways. Corrections applied are -4dB.</p> <p><i>Other Roads:</i> dense graded asphalt (DGA). Corrections applied are -1dB below or equal to 75km/h and 0dB from 75km/h.</p> <p><b>Build Option 2019-2029</b></p> <p><i>M1 Pacific Motorway:</i> it has been assumed that the road surface on the southbound carriageway would be resurfaced with OGA. Corrections applied are -3.5dB below 100km/h and -4dB from 100km/h on both northbound carriageways.</p> <p><i>M2 Hills Motorway:</i> open graded asphalt (OGA) on both northbound and southbound carriageways. Corrections applied are -4dB.</p> <p>Portal Ramps have been modelled with stone mastic asphalt (SMA). Correction applied is -2.5dB.</p> <p><i>Other Roads:</i> dense graded asphalt (DGA). Corrections applied are -1dB below or equal to 75km/h and 0dB from 75km/h.</p>
Traffic Volume	<p><b>VALIDATION NOISE MODEL:</b></p> <p>Traffic counts for the validation period were provided by Transurban between 25<sup>th</sup> May and 7<sup>th</sup> June 2022. The data provided were from toll collection points, and included light vehicle and heavy vehicle</p>

Parameter	Comment
	<p>counts in 15 minute interval increments. Data was not available for all sections of the project. For those sections, the traffic volumes were obtained from the <a href="#">NSW toll road data website</a> have been used for the validation model.</p> <p><b>POST CONSTRUCTION COMPLIANCE NOISE MODEL:</b></p> <p>Traffic volumes for the PCNA model are obtained from the files provided by AECOM's Principal Transport Planner and as presented in the RWDI (Wilkinson Murray) report <i>13245-O Operational Noise Mitigation Assessment Report Ver J</i>, dated 20 November 2019.</p> <p>Files from AECOM:</p> <ol style="list-style-type: none"> <li>1. "1. North_2029 AADT without project";</li> <li>2. "2. North_2029_AADT_with project";and</li> <li>3. "M2 PHR Volumes 2019 and 2029".</li> </ol>
<b>Terrain</b>	Off-site contours extracted from 3D EIS noise model. Spot checks were conducted during the validation stage and minor changes to contours were made as required based on available data from Geoscience Australia.
<b>Façade Correction</b>	+2.5dB façade reflection corrections for all predicted levels in accordance with <i>CoRTN</i> .
<b>Noise monitoring results</b>	A +2.5 dB façade reflection correction has been added to measurements taken in the free field.
<b>Australian Conditions</b>	Small negative corrections for "Australian conditions", derived from documented validation of the CoRTN algorithms, have been included, both for calculations with and without façade correction. (April 1983 Australian Road Research Board report - Research Report ARR No.122). The Australian correction of -1.7dB was applied to facade predictions and -0.7dB to free field predictions.
<b>Calibration Adjustments</b>	Not required as model calibrates well at all noise monitoring locations for both day and night time periods.
<b>Sensitivity Allowance for future predictions</b>	<p>To allow for a small degree of uncertainty in the generation of noise from the project the following sensitivity adjustments have been made:</p> <ul style="list-style-type: none"> <li>+1dB for sections of OGAC to take into consideration longer term degradation effects</li> <li>+1dB for sections of SMA to take into consideration a variable initial performance</li> <li>+1dB in vicinity of intersection ramps to cover any residual engine braking</li> </ul>
<b>Buildings &amp; Receivers</b>	Land use survey was carried out by RWDI (Wilkinson Murray) during April and May 2015 to identify height information associated with all noise-sensitive receivers visible from the public domain.
<b>Noise Barriers</b>	Road and barrier geometry was provided to RWDI (Wilkinson Murray) during the design process by LLBJV (Lend Lease Bouygues Joint Venture). For the PCNA, as-built barrier drawings were provided by Transurban in pdf and dxf format for all barriers. Due to the limitations of the files provided, spot checks were conducted to note differences between the <b>for construction drawings</b> and the <b>as-built drawings</b> . A summary of these checks are presented in <b>Appendix D</b> of this report. Any changes to the barriers have been included in the post construction validation noise model and also the post construction compliance noise model.
<b>Ground Absorption</b>	Ground absorption factor was set to 50% for the entire area.

Note Corrections applied on roads represent the noise reduction benefit as a result of the road surface.

## 8.3 Validation of Noise Model

The noise model used during the ONMAR stage was validated against existing noise levels. The SoundPLAN noise model (using CoRTN Australia) has been established primarily on this basis. Measured results are compared with model predictions for the existing road using current traffic volumes and using realistic traffic speeds for several roads. **Table 8-2** and **Table 8-3** show the measured and predicted values of the measurement locations for NorthConnex and M2 Integration. Note that the measured and predicted levels include corrections described in **Table 8-1**. A positive value indicates an overprediction of the noise levels.

**Table 8-2 Model Validation Results for NorthConnex Northern**

Monitoring Location	Measured dB		Predicted dB		Predicted – Measured Difference dB	
	Day $L_{Aeq,15hr}$	Night $L_{Aeq,9hr}$	Day $L_{Aeq,15hr}$	Night $L_{Aeq,9hr}$	Day	Night
NCA-1A-T1a	65	60	63	60	-2.0	-0.9
NCA-2A-T2	57	54	57	54	0.5	0.3
NCA-2D-T3	57	54	56	52	-1.2	-1.2
NCA-3-T4a	61	57	63	58	2.0	0.7
Median Difference					-0.5	-0.4
Standard Deviation					1.8	0.9

Note Predicted and measured noise levels have been rounded to the nearest decimal places as per the *Road Noise Policy* (Appendix B2 – Rounding: noise levels must be rounded to the nearest integer and differences between two noise levels rounded to a single decimal place)

**Table 8-3 Model Validation Results for NorthConnex Southern and M2 Integration**

Monitoring Location	Measured dB		Predicted dB		Predicted – Measured Difference dB	
	Day $L_{Aeq,15hr}$	Night $L_{Aeq,9hr}$	Day $L_{Aeq,15hr}$	Night $L_{Aeq,9hr}$	Day	Night
NCA-10B-B15	55	50	53	49	-1.9	-1
NCA-10C-2238	60	56	59	55	-0.8	-1.5
NCA-10D-B17	63	58	62	57	-0.7	-0.8
NCA-11B-T11	60	55	58	53	-1.8	-1.8
NCA-13-T12	60	56	59	54	-0.4	-1.4
NCA-14-T13	62	59	64	59	1.6	0.6
Median Difference					-0.8	-1.2
Standard Deviation					1.3	0.9

Note Predicted and measured noise levels have been rounded to the nearest decimal places as per the *Road Noise Policy* (Appendix B2 – Rounding: noise levels must be rounded to the nearest integer and differences between two noise levels rounded to a single decimal place)

Results to within 2dBA (measured vs. predicted) are generally considered acceptable given the expected accuracy of standard noise monitoring and modelling procedures in conjunction with variability in traffic speeds and variability in pavement wear along the whole alignment.



Due to more stringent criteria applying at night time and the expectation of lower extraneous noise, the night time period is generally considered more important with respect to the traffic noise assessment and is therefore the focus with regard to model validation.

For both the NorthConnex Northern and the Northconnex Southern & M2 Integration models, the model validation results are considered satisfactory as the difference between measured and predicted noise levels falls within the  $\pm 2$  dB range for both day and night time periods. Hence no further calibration of the model is required.

## 9 ASSESSMENT OF POST CONSTRUCTION OPERATIONAL NOISE

This section discusses the assessment of revised operational noise levels from the compliance noise model against the limits of the *RNP* and the PCNA procedure.

As the post construction validation model was accepted as valid, it was modified to become the post construction compliance model. The post construction compliance model was used to update predictions for the year 2029 at all receivers and compared to the predictions published in the ONMAR.

The post construction compliance noise model was based on the following;

- Base model with road geometry from the Detailed Design model used in the ONMAR to design noise mitigations;
- Traffic volumes as presented in Appendix D of the RWDI ONMAR report (13045-O Ver J);
- As built noise barriers supplied by Transurban;
- Surface corrections as discussed in **Table 8-1**;

Updated predictions for all receivers for 2029 are shown in **Appendix E**. **Appendix F** presents the PCNA Build Option 2029 results against the ONMAR Build option 2029 results and indicates no change in the results.

Considering the updated predictions for 2029:

- The post construction compliance noise model predicts no new receivers with operational noise levels higher than the build option 2029 levels presented in the ONMAR report.
- The post construction compliance noise model predicts no new receivers with acute operational noise levels.

## 10 COMPLAINT ASSESSMENT

Since the opening of the project, there has been one additional noise complaint received from the community from a residence in the NorthConnex Southern & M2 Integration section of the project, adjacent to Coral Tree Drive, Carlingford. From correspondence with Transurban, it is noted that the noise complaint was raised by the resident specifically in relation to the Northconnex traffic noise. The following has been noted based on onsite observations during the noise monitoring:

- Traffic from the M2 motorway is the dominant source of noise
- The location of monitoring is also affected by a slight presence of insect noise
- Occasional air traffic was present

Noise monitoring was conducted during a period of typical traffic volumes on the project (i.e. not on a public holiday or during school holidays) in accordance with **Section 6.1**.

**Table 10-1** presents the results of the measured and predicted noise at the complainant location. It is noted that although the measured night time levels exceed the base night time criterion of 55 dBA, the PCNA model indicates no further change in comparison to the Build Option 2029 predictions of the ONMAR model. Further it



has been noted that this residence has already been considered for treatment during the mitigation review stage of the project. Hence no further treatment is required for this residence.

**Table 10-1 Measured Noise Levels at Complainant Locations (with Façade Correction)**

Monitor ID	Location	Measured Levels		Predicted Build option 2029 (ONMAR model)		PCNA model predicted levels		Comment
		Day	Night	Day	Night	Day	Night	
NCA-10C-2238	Noise Compliant Location	60	56	62	58	62	58	Already treated. No further treatment required as PCNA model as there is no change indicated in the PCNA model in comparison to the ONMAR model.



## 11 CONCLUSION

The Northconnex and M2 Integration project was a road upgrade with potential to increase noise impact adjacent residences. The project was opened to traffic on 31 October 2020.

During the construction stage of the project, a number of noise mitigation such as quieter pavement surfaces, new barriers/raised barriers, and provision of architectural treatment at individual residences were included.

To satisfy the conditions of the CoA, a post construction noise assessment has been completed in accordance with the relevant policies and guidelines.

As-built barriers were included in the validation noise model along with minor changes to contours as part of the assessment process. The post operational validation model was validated by comparing predicted levels to measured levels at 10 locations spread across the Northern and Southern sections of the project. The resulting noise model was considered as valid as the difference between the predicted and measured levels were less than  $\pm 2$ dB.

Traffic data and other relevant parameters for the design year 2029 were then incorporated into the validated model to update the predictions for the year 2029. Predicted levels from the post operational compliance model are found to be no greater than the predictions of the detailed design model (ONMAR) at all receivers within the study area.

Finally, an assessment of a noise compliant has been conducted. Although the findings indicate an exceedance of the base night time criterion by +1 dB, the predictions indicate that the PCNA levels are no higher than the predictions of the ONMAR report. Hence no further treatment is required for this residence.

### STATEMENT OF LIMITATIONS

This report entitled NCX & M2 Integration PCNA- NORTHERN & SOUTHERN INTERCHANGE was prepared by RWDI Australia Pty. Ltd. ("RWDI") for Transport for New South Wales ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

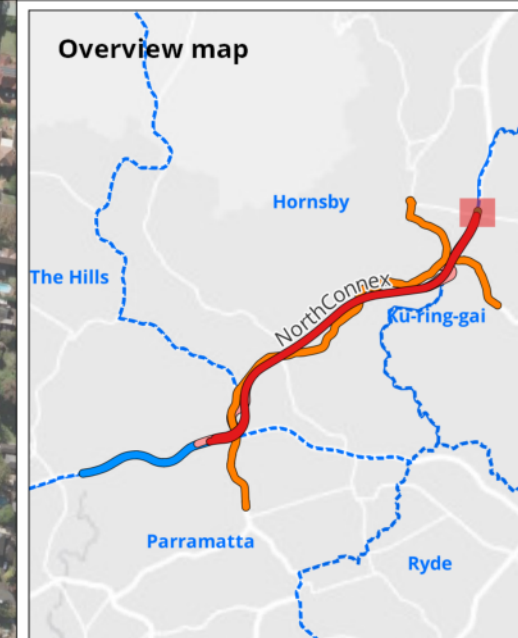
Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.



The background of the page features a large, light beige circle on the right side, partially overlapping a solid blue triangle on the left. The text is centered within the beige circle.

# APPENDIX A

**SENSITIVE RECEIVER MAPPING & NOISE CATCHMENT AREAS**



### Legend

#### Residential Buildings

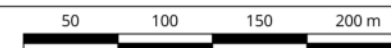
- Single Storey
- Double Storey
- > Double Storey

#### Non Residential Buildings

- Non Residential Buildings

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel



**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

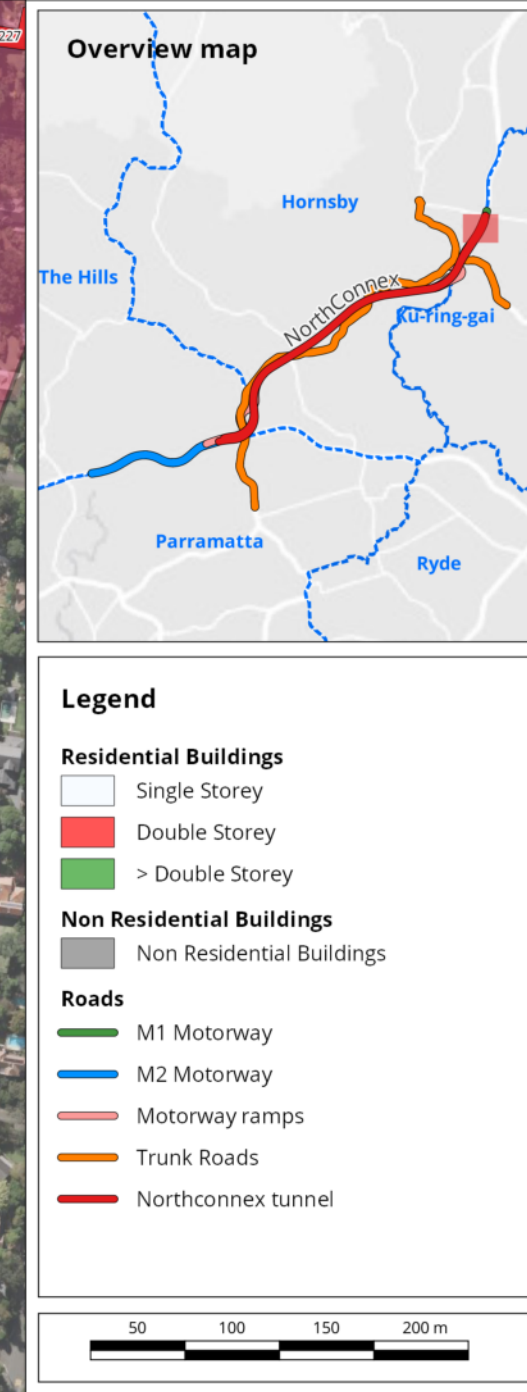
Project No.: 2202138 Figure: A -1 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

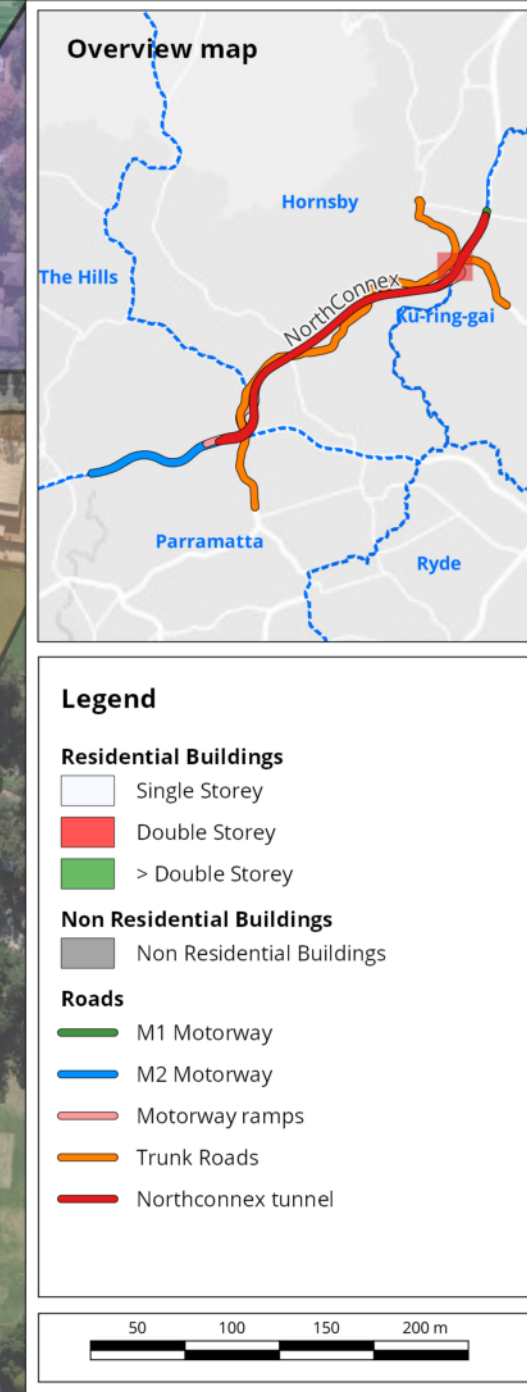
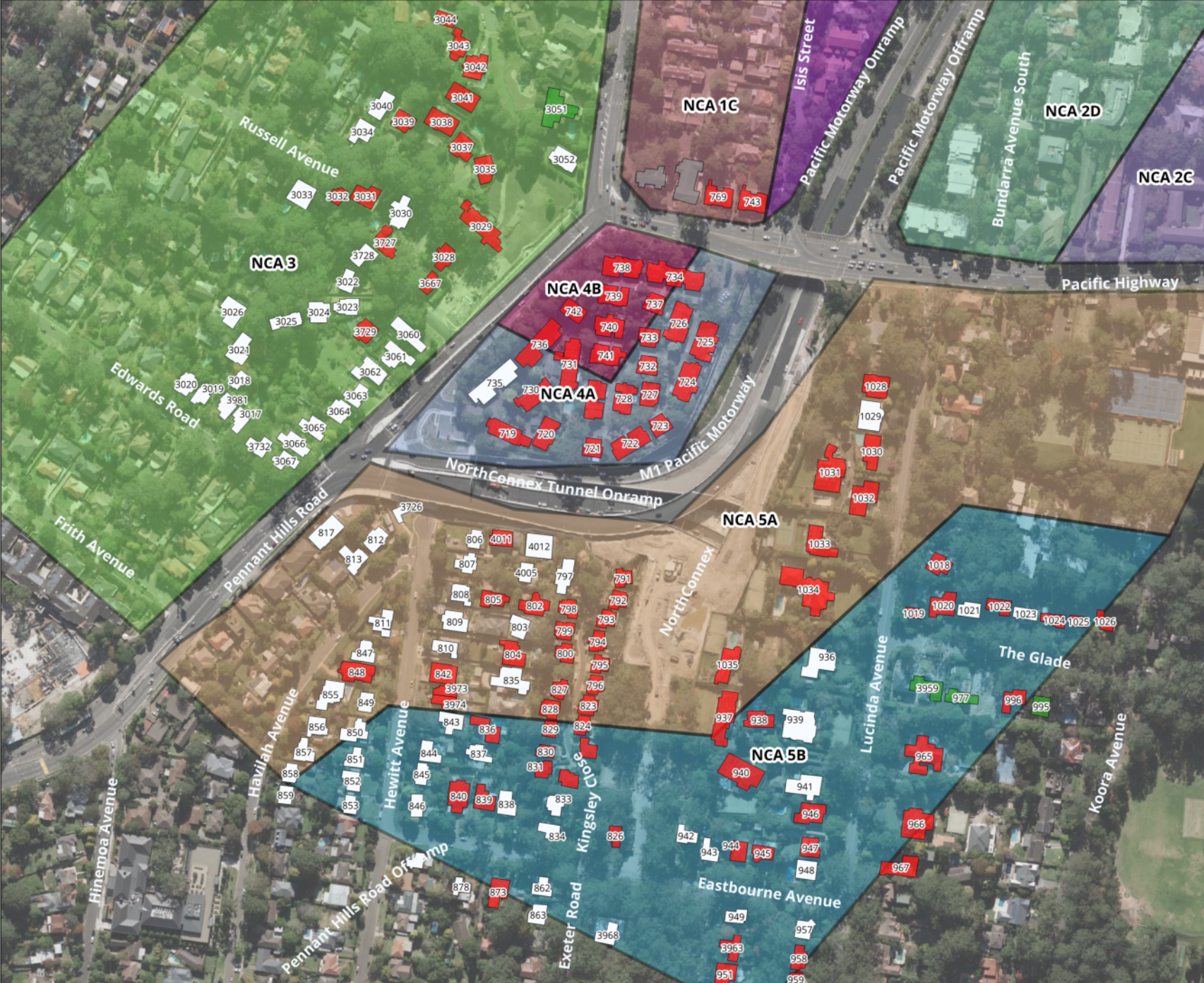
Figure: A -2 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** NorthConnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

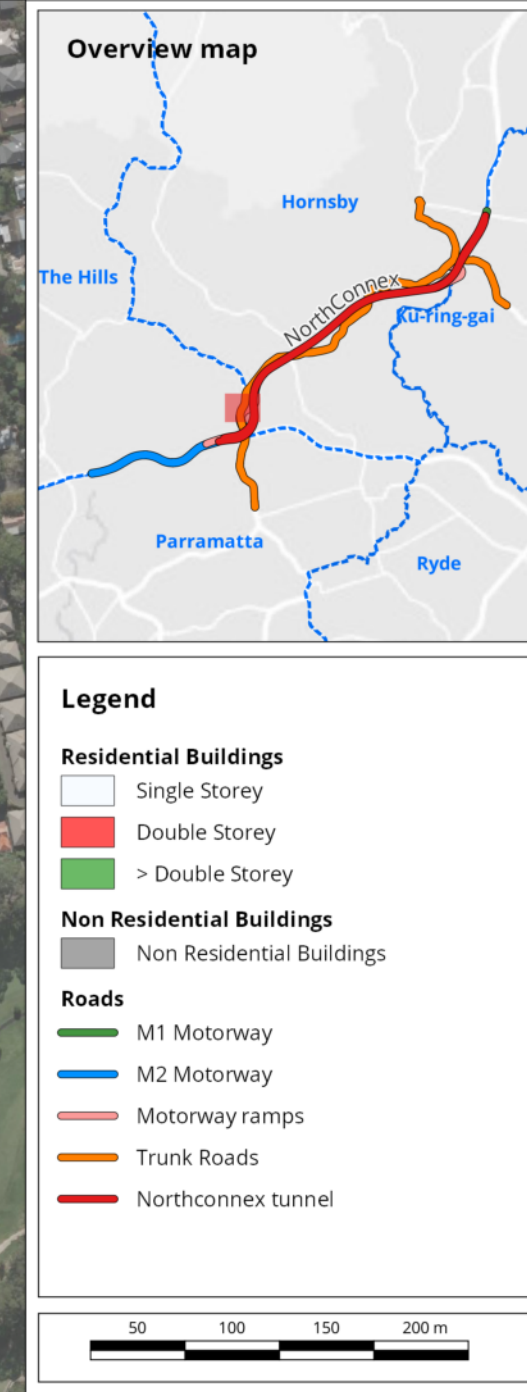
Figure: A -3 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** NorthConnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

Sources:  
1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

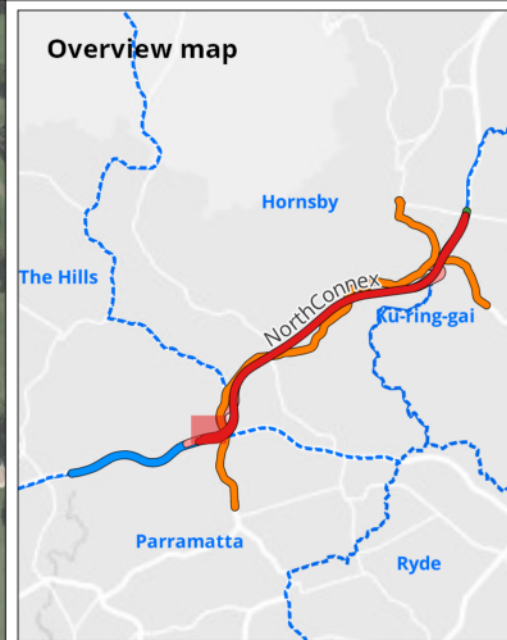
Figure: A -4 of 13

Drawn by: APIN

Checked by: JW







## Legend

### Residential Buildings

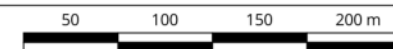
- Single Storey
- Double Storey
- > Double Storey

### Non Residential Buildings

- Non Residential Buildings

### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- NorthConnex tunnel



**Project Title:** NorthConnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps

Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)



Revised on: 11/08/2022

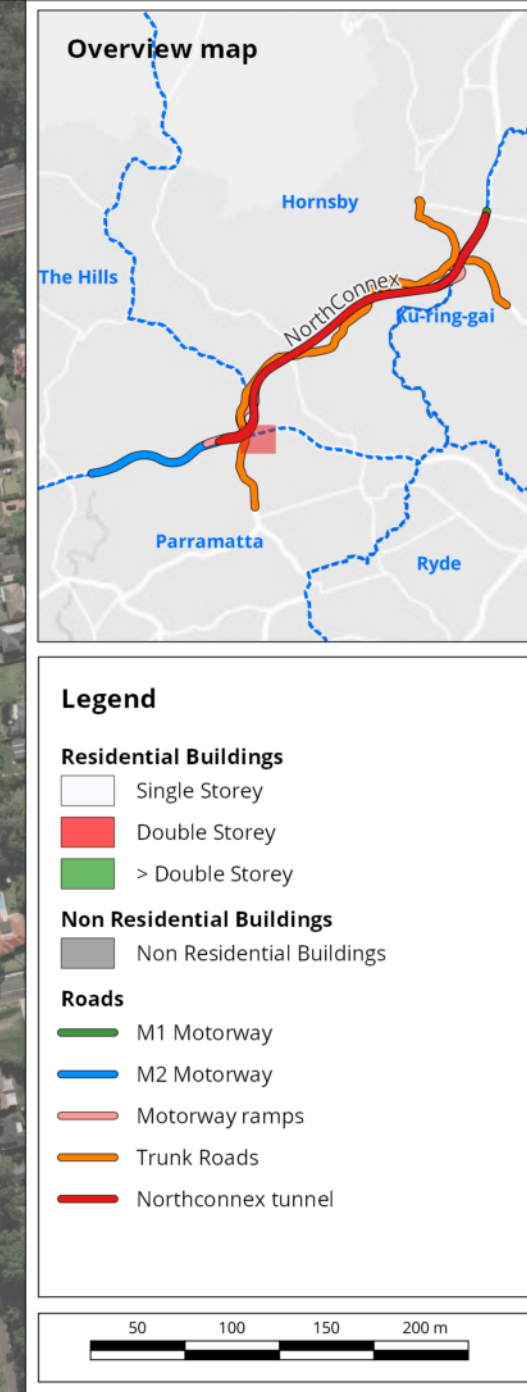
Project No.: 2202138 Figure: A -5 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** NorthConnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

Sources:  
1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

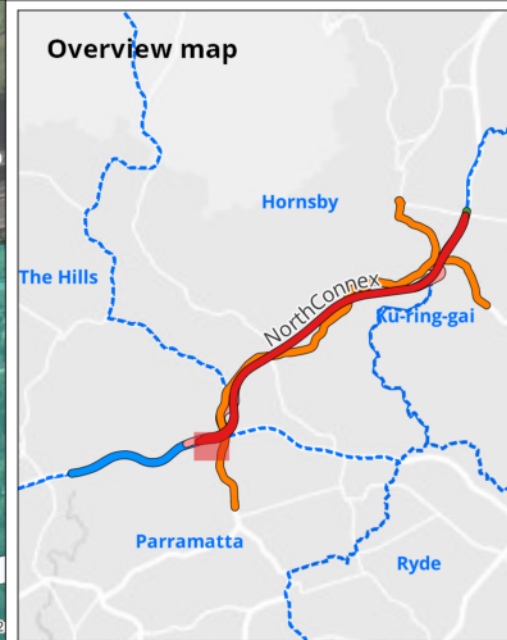
Figure: A -6 of 13

Drawn by: APIN

Checked by: JW







### Legend

#### Residential Buildings

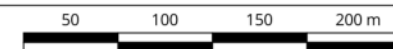
- Single Storey
- Double Storey
- > Double Storey

#### Non Residential Buildings

- Non Residential Buildings

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel



**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps

Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)



Revised on: 11/08/2022

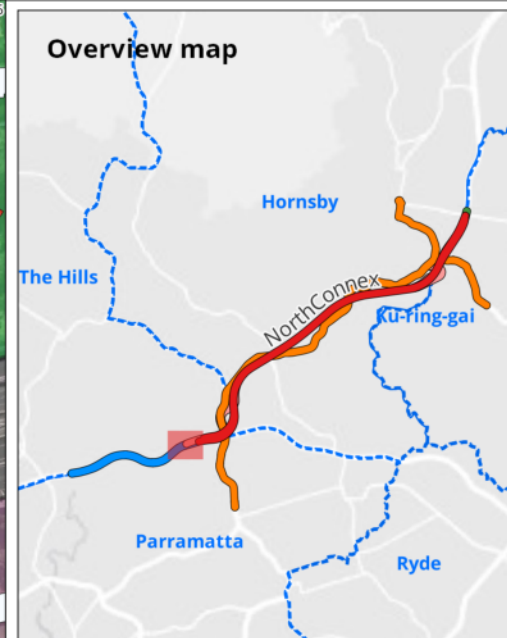
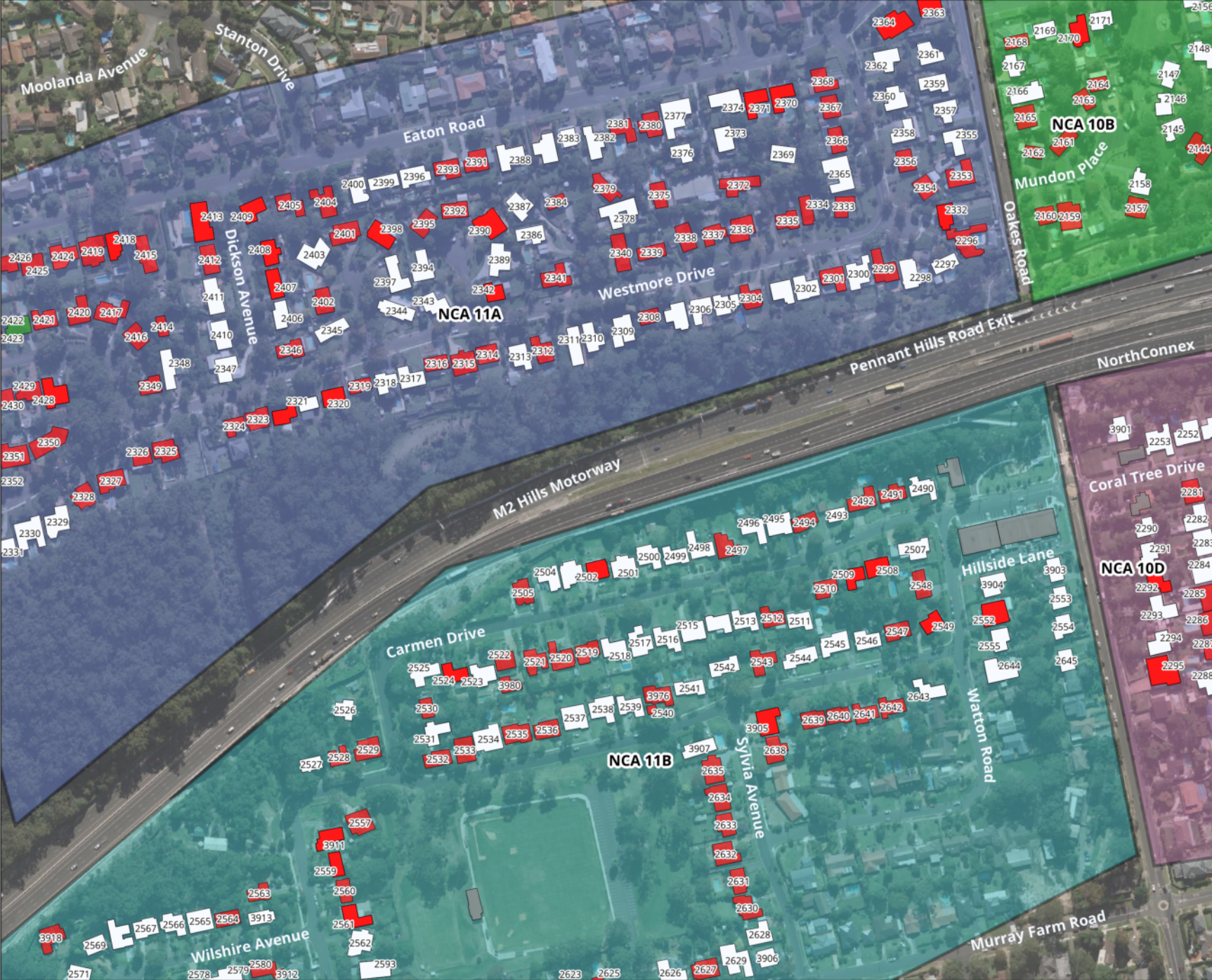
Project No.: 2202138 Figure: A -7 of 13

Drawn by: APIN

Checked by: JW







### Legend

#### Residential Buildings

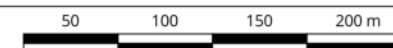
- Single Storey
- Double Storey
- > Double Storey

#### Non Residential Buildings

- Non Residential Buildings

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel



**Project Title:** NorthConnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

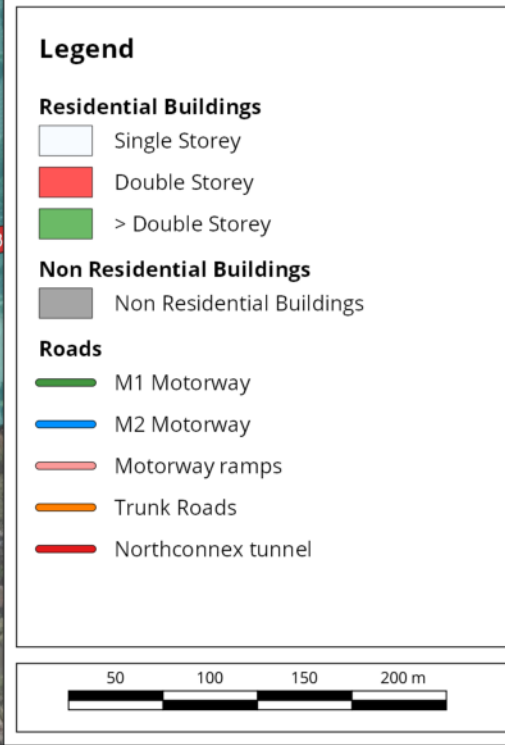
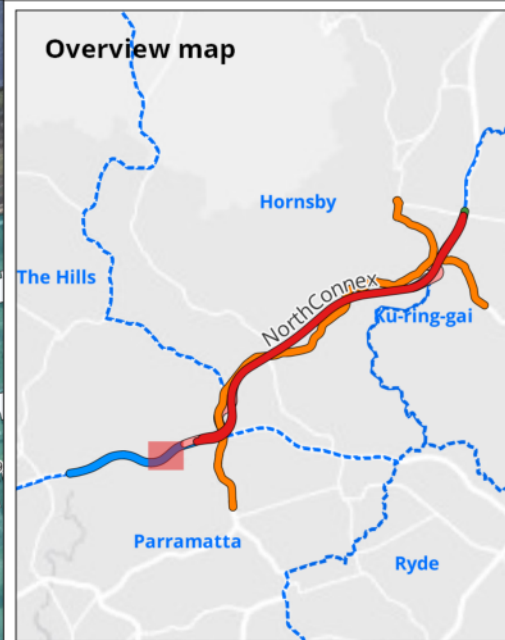
Figure: A -8 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

Sources:  
1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

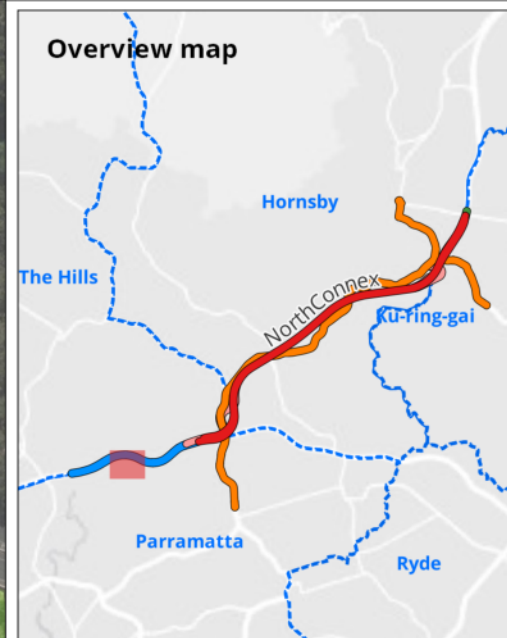
Figure: A -9 of 13

Drawn by: APIN

Checked by: JW







### Legend

#### Residential Buildings

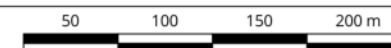
- Single Storey
- Double Storey
- > Double Storey

#### Non Residential Buildings

- Non Residential Buildings

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel



**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

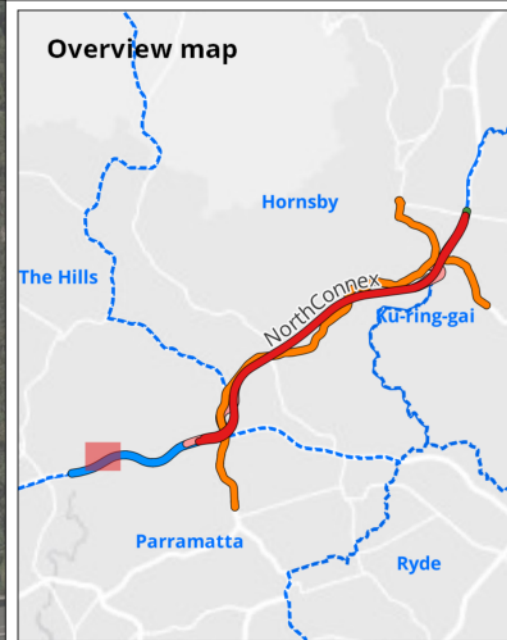
Project No.: 2202138 Figure: A -10 of 13

Drawn by: APIN

Checked by: JW







## Legend

### Residential Buildings

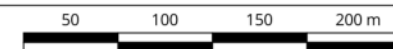
- Single Storey
- Double Storey
- > Double Storey

### Non Residential Buildings

- Non Residential Buildings

### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel



**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment  
**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**  
 1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

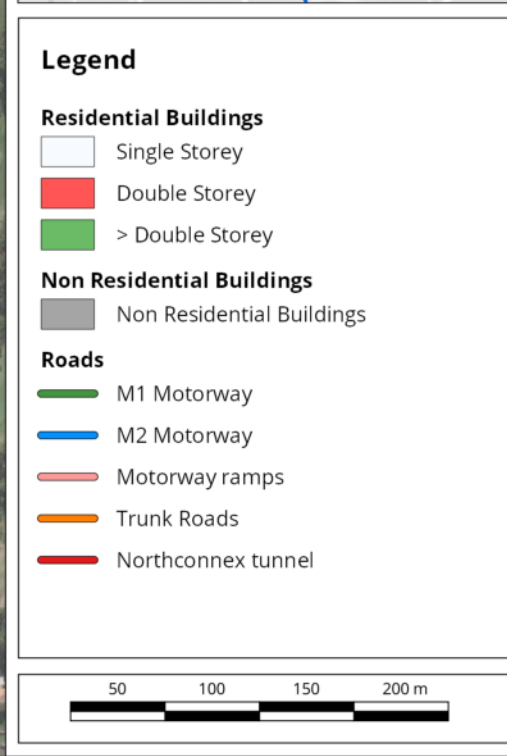
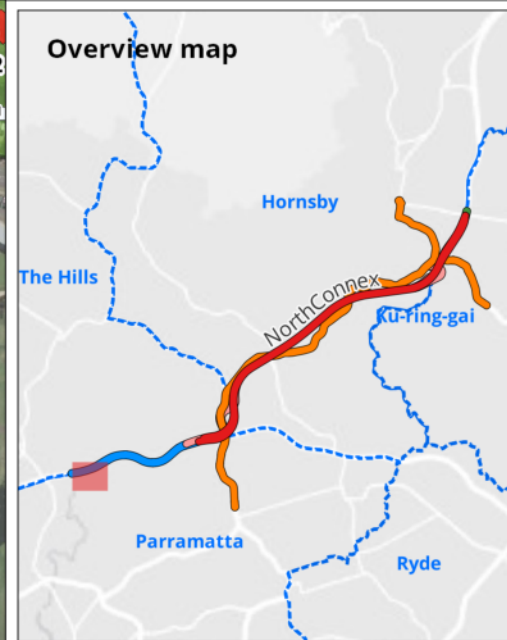
Project No.: 2202138 Figure: A -11 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

**Sources:**

1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

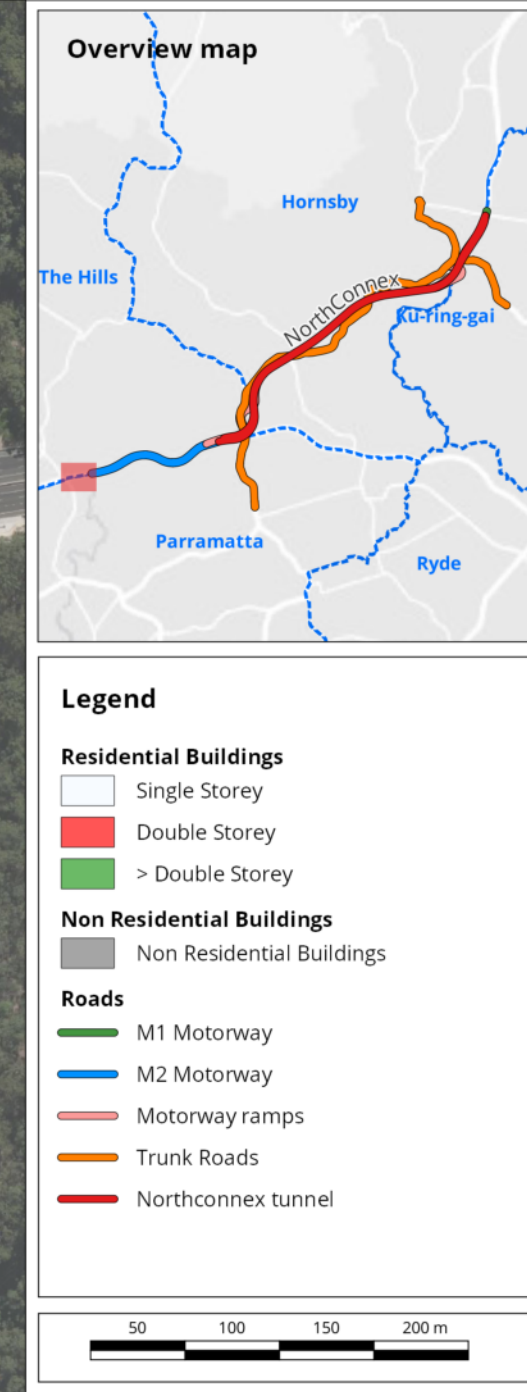
Figure: A -12 of 13

Drawn by: APIN

Checked by: JW







**Project Title:** Northconnex & M2 Integration project - Post Construction Noise Assessment

**Figure Title:** Noise Sensitive Receiver mapping & Noise Catchment Areas

Sources:  
1. Basemap: © 2022 Bing Maps



Map Projection: GDA94 / MGA zone 56 / (EPSG:28356)

Revised on: 11/08/2022

Project No.: 2202138

Figure: A -13 of 13

Drawn by: APIN

Checked by: JW

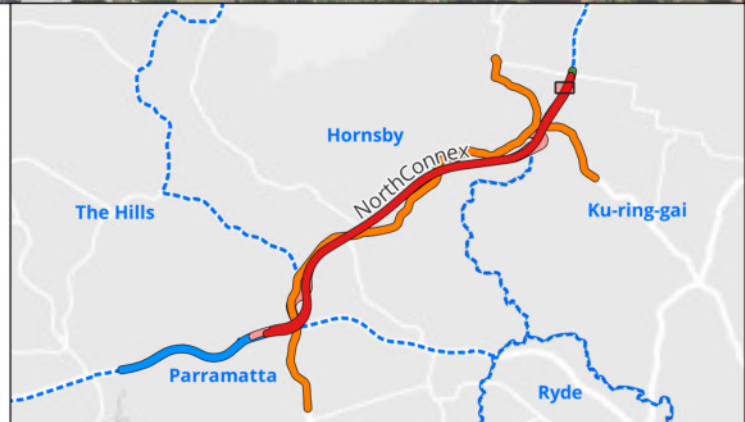


The background of the page features a large, light gray circular shape on the right side, partially overlapping a solid blue triangular shape on the left. The text is centered within the gray area.

# APPENDIX B

## TRAFFIC NOISE MEASUREMENT LOCATIONS





#### Location reference: NCA-1A-T1

**Logger Model Name :** Rion 52-EX

**Logger Serial No. :** 00876008

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 1A

**Logger placement:** Free field in backyard

#### Legend

M1 Motorway	Northconnex tunnel
M2 Motorway	Other roads
Motorway ramps	Noise Monitor
Trunk Roads	

#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA  
**Figure Title:** Noise Monitoring Locations  
**Address:** 1/43 Bareena Avenue,  
Wahroonga



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-1 of 10

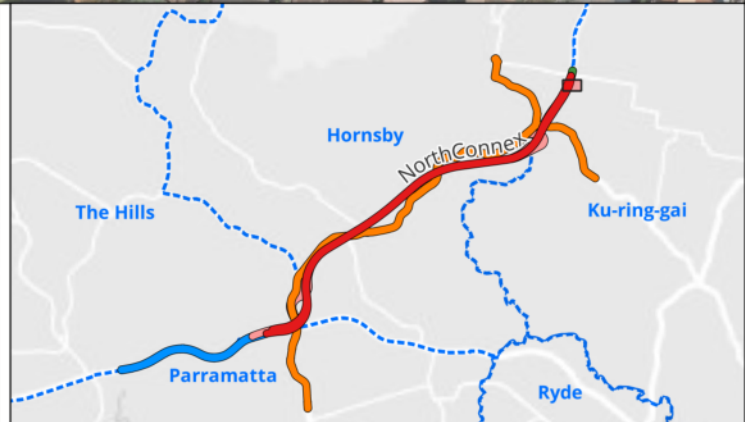
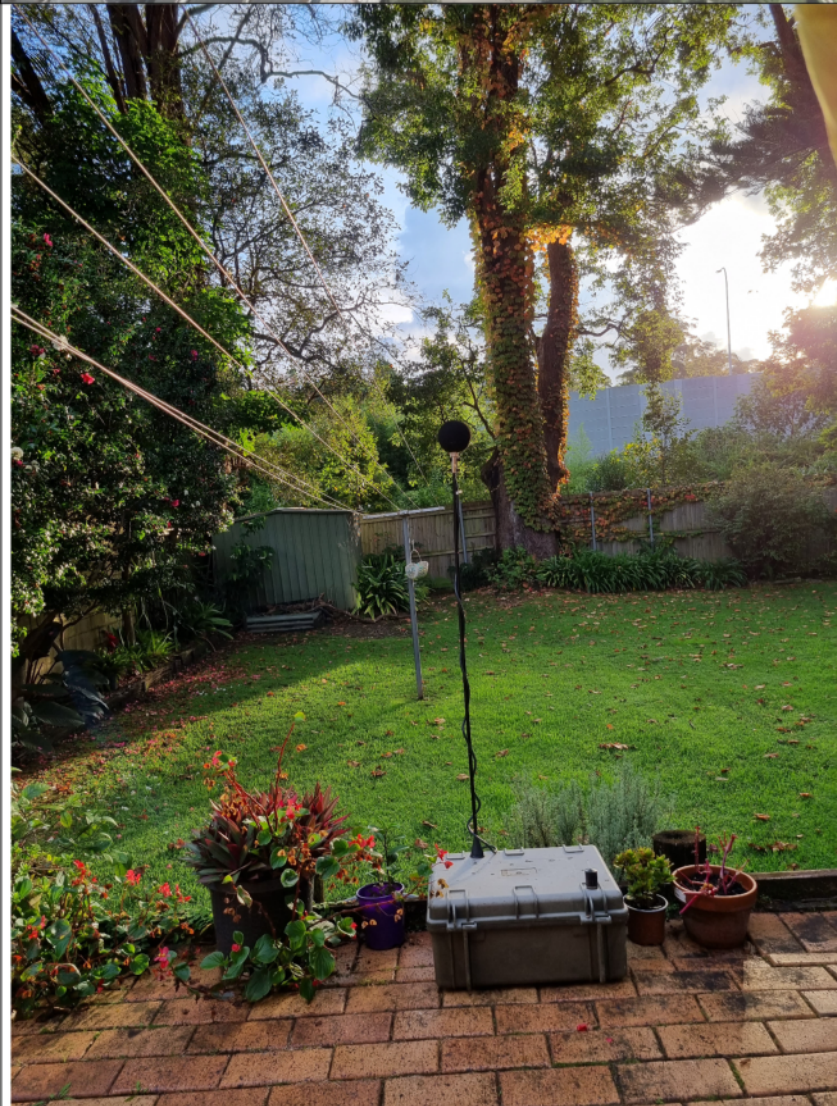
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







#### Location reference: NCA-2A-T2

**Logger Model Name :** Rion 52-EX

**Logger Serial No. :** 01276557

**Start Date:** 25/05/2022

**Stop Date:** 31/05/2022

**NCA:** 2A

**Logger placement:** Backyard in front of facade

#### Legend

M1 Motorway	Northconnex tunnel
M2 Motorway	Other roads
Motorway ramps	Noise Monitor
Trunk Roads	

#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA  
**Figure Title:** Noise Monitoring Locations  
**Address:** 118A Coonanbarra Road,  
Wahroonga



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-2 of 10

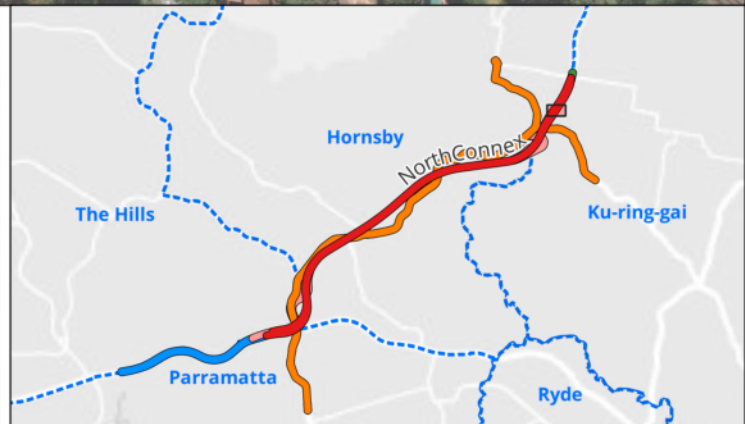
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







### Location reference: NCA-2D-T3

**Logger Model Name :** Rion 52-EX

**Logger Serial No. :** 00242768

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 2D

**Logger placement:** Free field near pedestrian

### Legend

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads
-  Noise Monitor

### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA  
**Figure Title:** Noise Monitoring Locations  
**Address:** 22 Woonona Avenue, Wahroonga



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-3 of 10

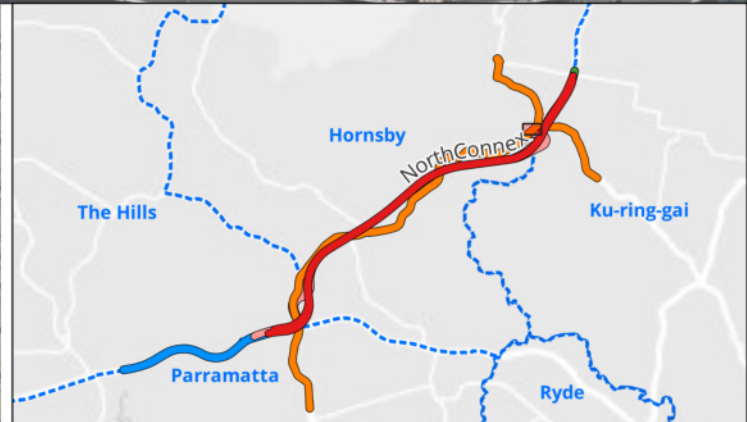
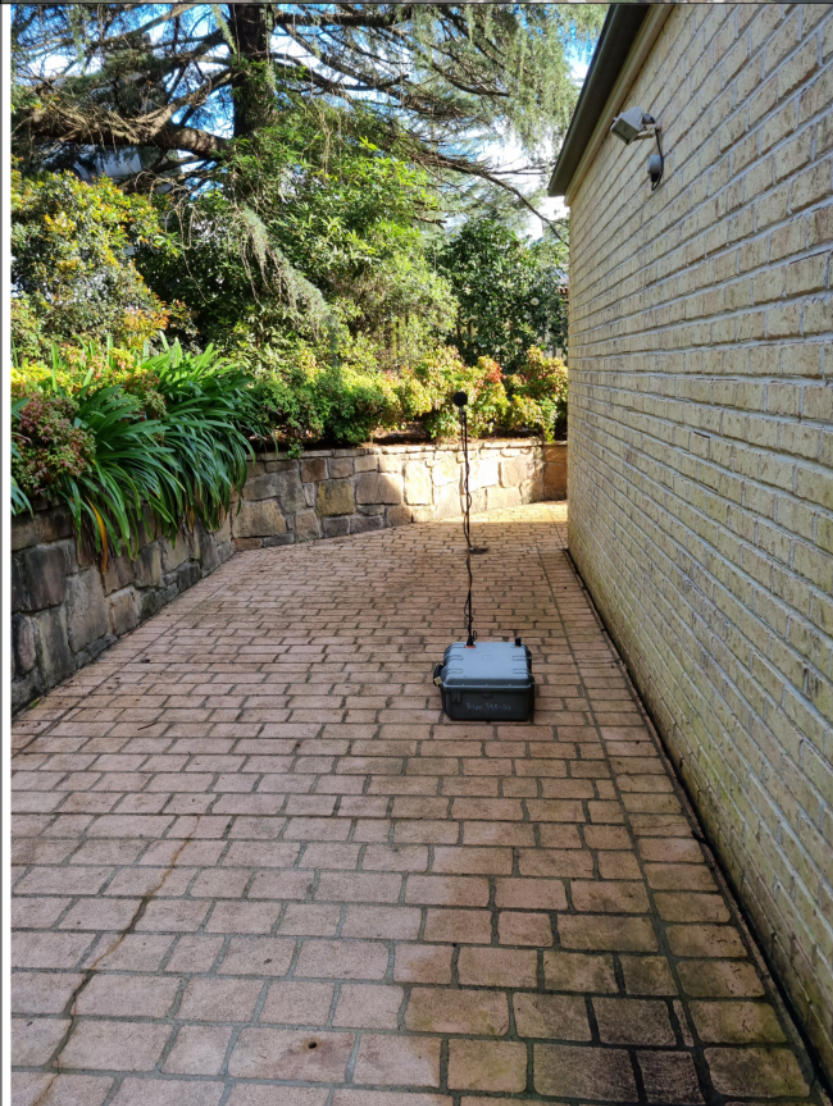
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







#### Location reference: NCA-3-T4

**Logger Model Name :** Rion 52-EX

**Logger Serial No. :** 00743077

**Start Date:** 25/05/2022

**Stop Date:** 31/05/2022

**NCA:** 3

**Logger placement:** In front of facade

#### Legend

 M1 Motorway	 Northconnex tunnel
 M2 Motorway	 Other roads
 Motorway ramps	 Noise Monitor
 Trunk Roads	

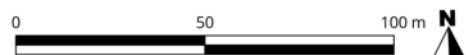
#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations

**Address:** 52 Russell Avenue, Wahroonga



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-4 of 10

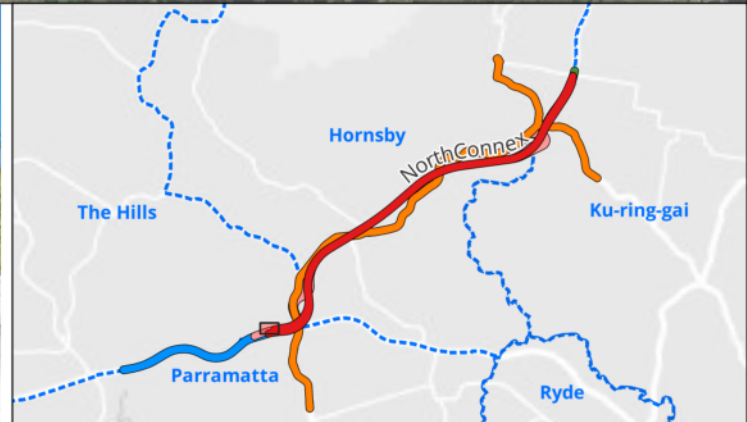
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







### Location reference: NCA-10B-B15

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 8780F1

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 10B

**Logger placement:** Free field in backyard

### Legend

M1 Motorway	Northconnex tunnel
M2 Motorway	Other roads
Motorway ramps	Noise Monitor
Trunk Roads	

### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations  
**Address:** 3 Mundon Place, West Pennant  
Hills



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-5 of 10

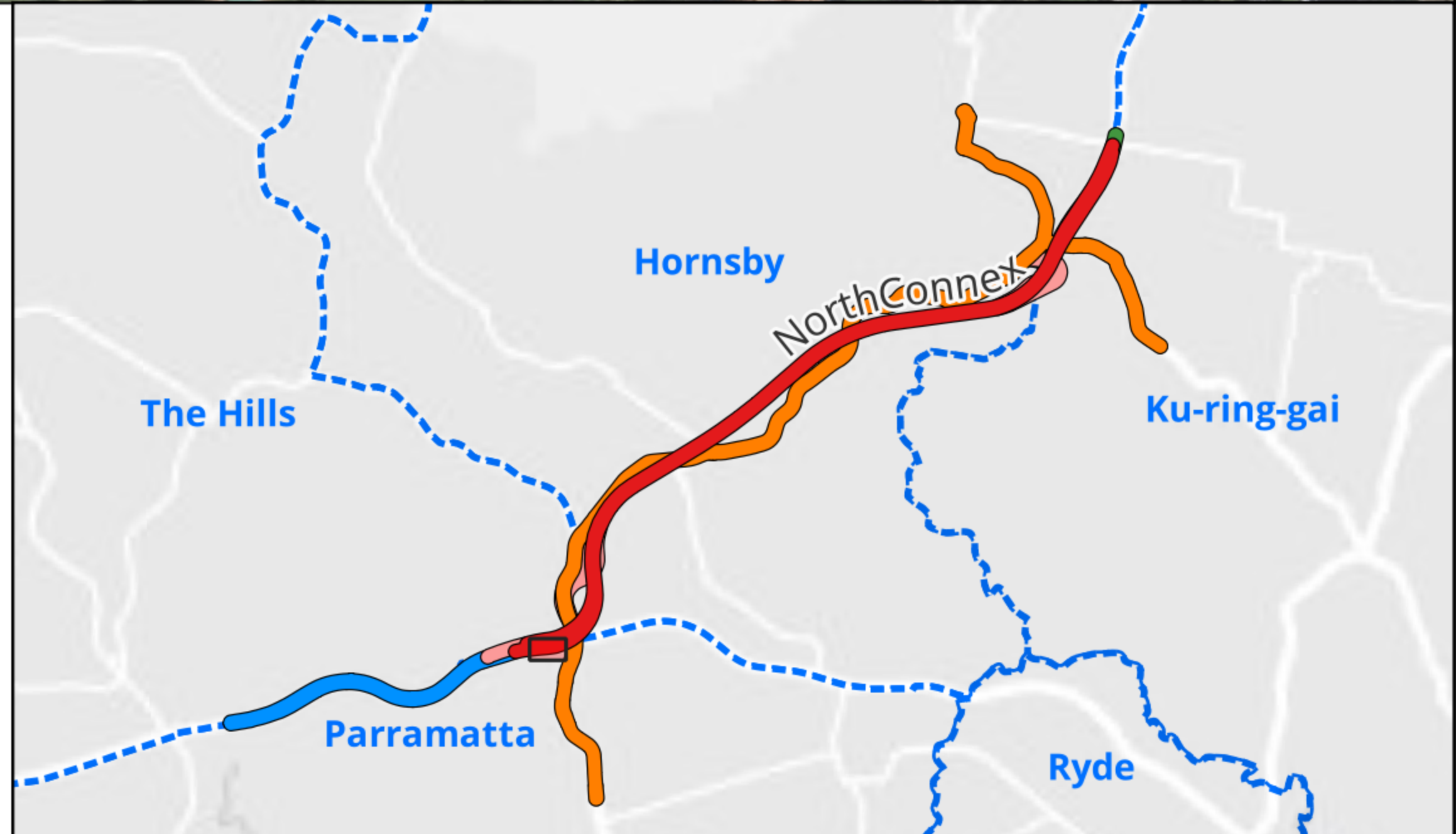
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







**Location reference: NCA-10C-2238**

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 8780FC




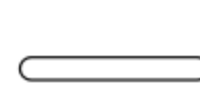



**Start Date:** 25/05/2022

**Stop Date:** 06/06/2022

**NCA:** 10C

**Logger placement:** Free field in backyard

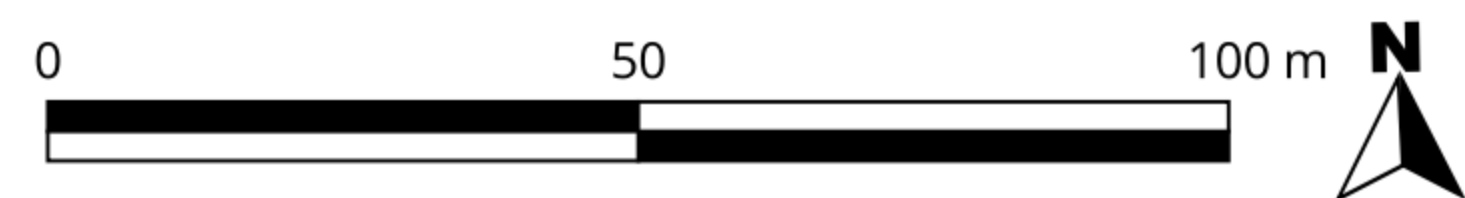
#### Legend

- |  |  |
|--|--|
|  M1 Motorway    |  Northconnex tunnel |
|  M2 Motorway    |  Other roads        |
|  Motorway ramps |  Noise Monitor      |
|  Trunk Roads    |  |

#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2  
Integration Project - PCNA  
**Figure Title:** Noise Monitoring Locations



Map Projection: GDA94 / MGA zone 56(EPG:28356)

Project No: 2202138

Figure: B-6 of 10

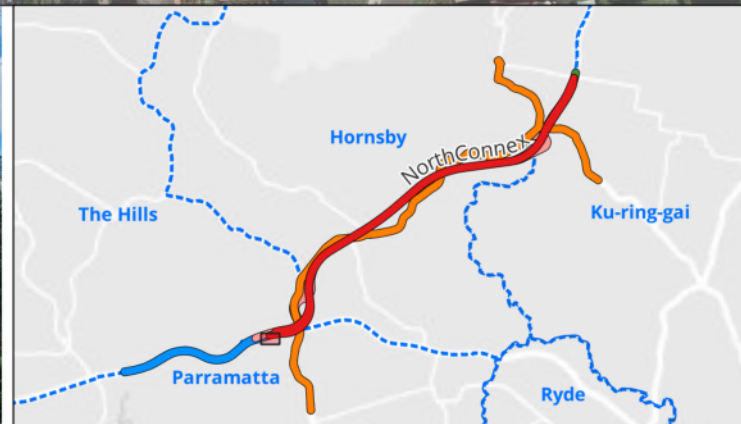
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







**Location reference: NCA-10D-B17**

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 8780FA

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 10D

**Logger placement:** Free field in front yard

#### Legend

M1 Motorway	Northconnex tunnel
M2 Motorway	Other roads
Motorway ramps	Noise Monitor
Trunk Roads	

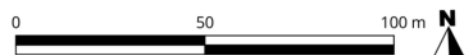
#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2 Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations

**Address:** 58 Oakes Road, Carlingford



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-7 of 10

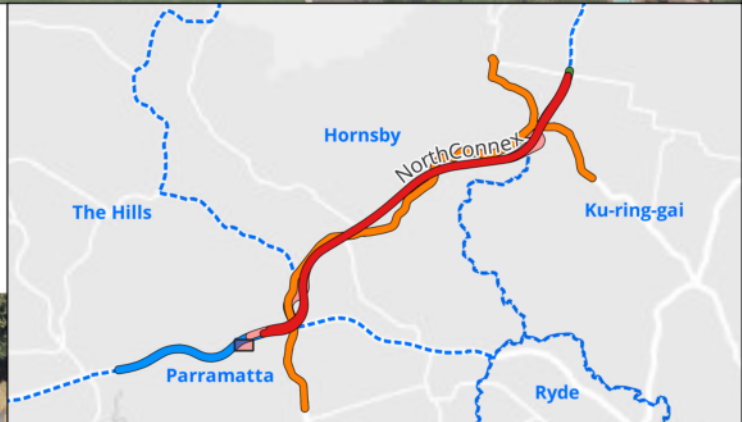
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







#### Location reference: NCA-11B-T11

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 878094

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 11B

**Logger placement:** Free field in backyard

#### Legend

M1 Motorway	Northconnex tunnel
M2 Motorway	Other roads
Motorway ramps	Noise Monitor
Trunk Roads	

#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2 Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations

**Address:** 66 Carmen Drive, Carlingford



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-8 of 10

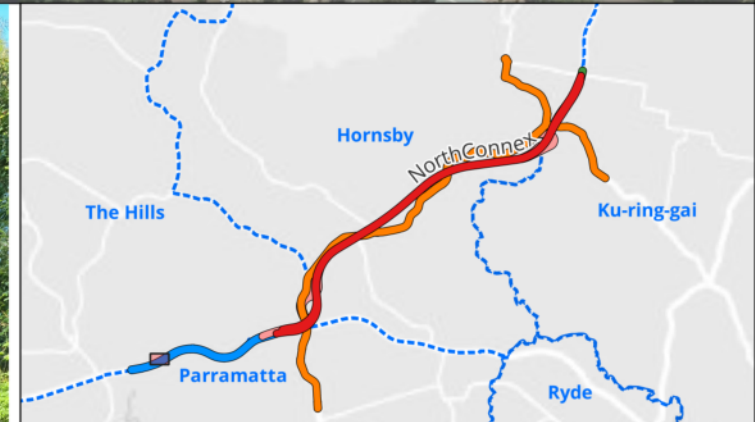
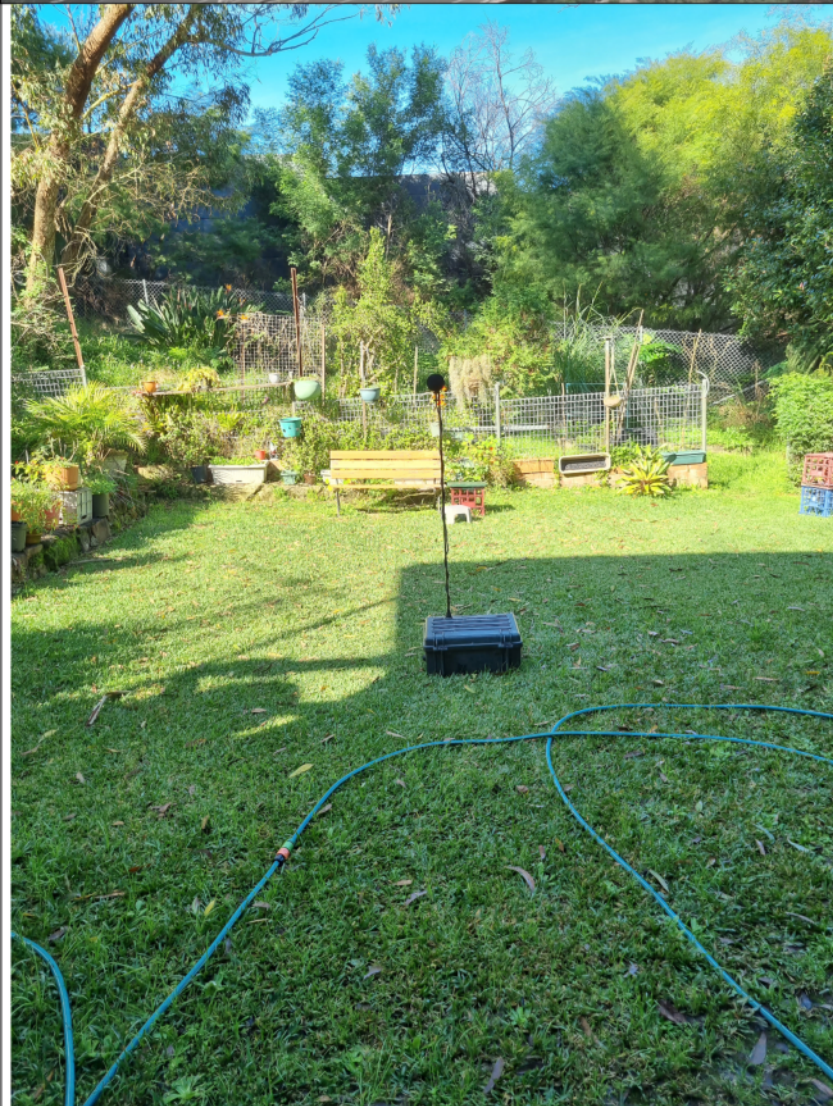
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







### Location reference: NCA-13-T12

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 8780F9

**Start Date:** 25/05/2022

**Stop Date:** 07/06/2022

**NCA:** 13

**Logger placement:** Free field in backyard

### Legend

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads
- Noise Monitor

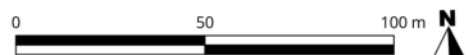
### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2 Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations

**Address:** 122 Barclay Road, North Rocks



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-9 of 10

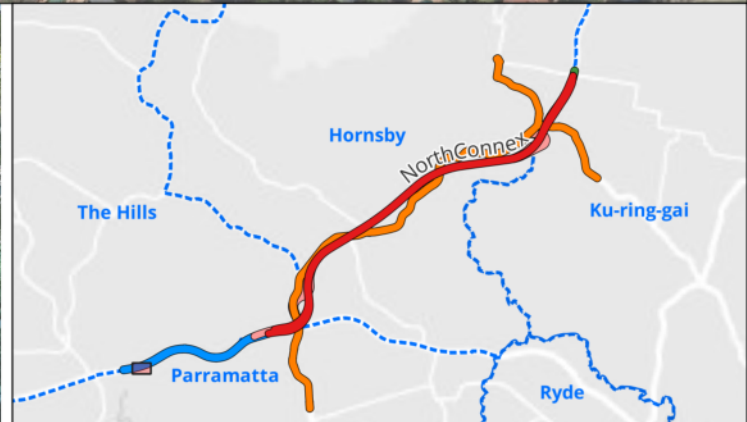
Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022







#### Location reference: NCA-14-T13

**Logger Model Name :** ARL Ngara

**Logger Serial No. :** 878092

**Start Date:** 25/05/2022

**Stop Date:** 06/06/2022

**NCA:** 14

**Logger placement:** Free field in backyard

#### Legend

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads
- Noise Monitor

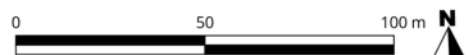
#### Sources:

1. Basemap: © 2022 Bing Maps
2. Roads: Open Street Map (for illustration only)

**Project Title:** Northconnex & M2 Integration Project - PCNA

**Figure Title:** Noise Monitoring Locations

**Address:** 25 Williams Road, North Rocks



Map Projection: GDA94 / MGA zone 56(EPSG:28356)

Project No: 2202138

Figure: B-10 of 10

Prepared by: APIN

Checked by: JW

Date Revised: 11 Aug 2022



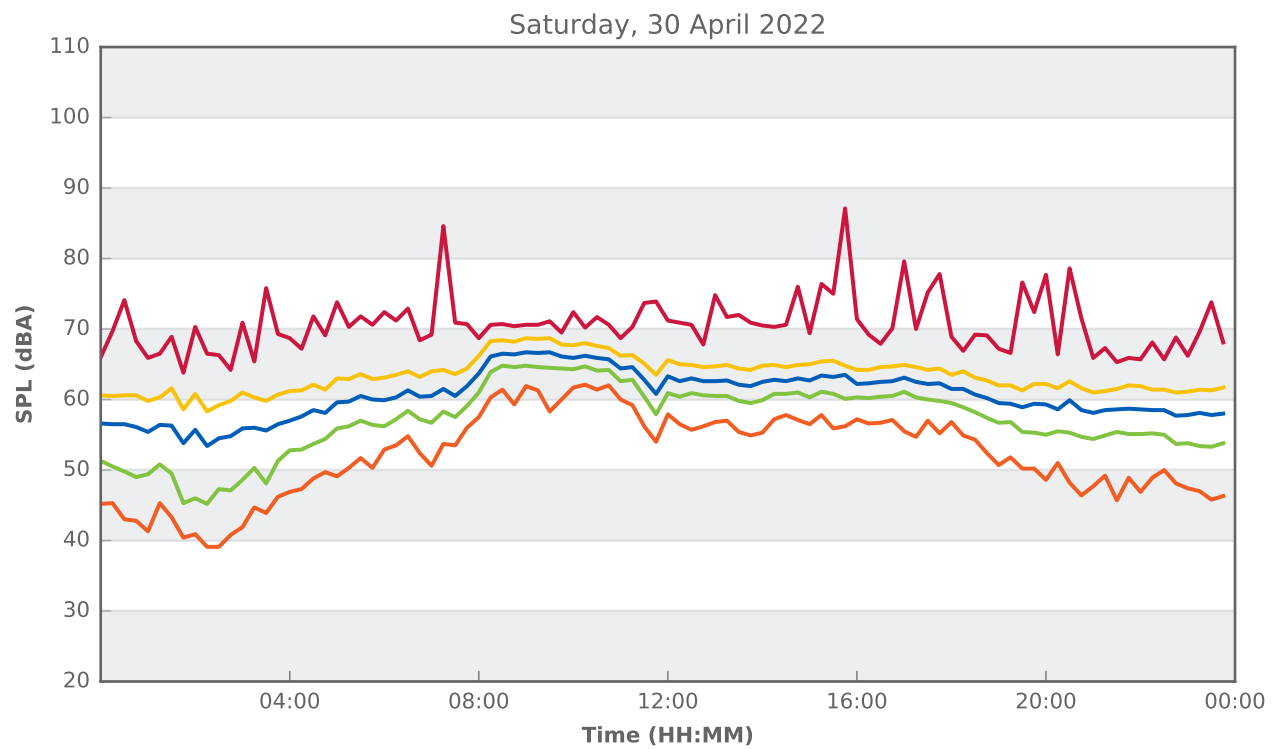
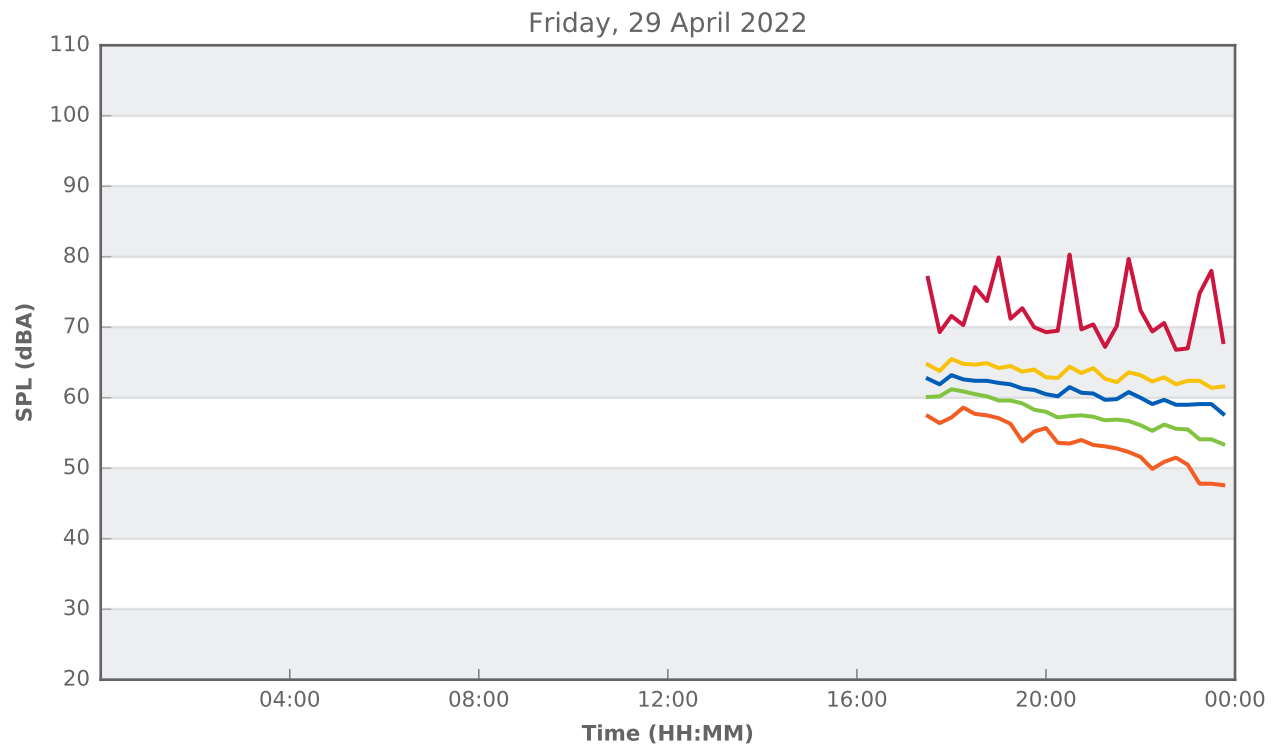


The background features a large, light beige curved shape on the right side and a blue curved shape on the left side, separated by a white line.

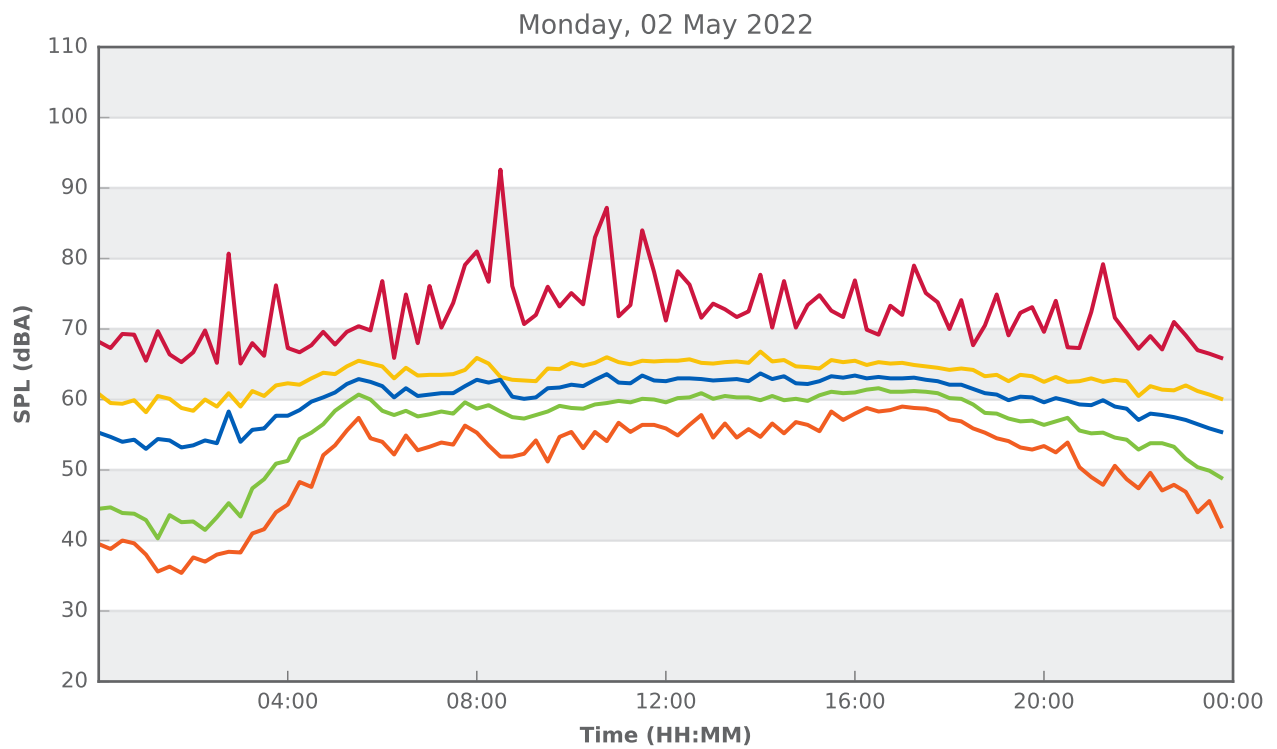
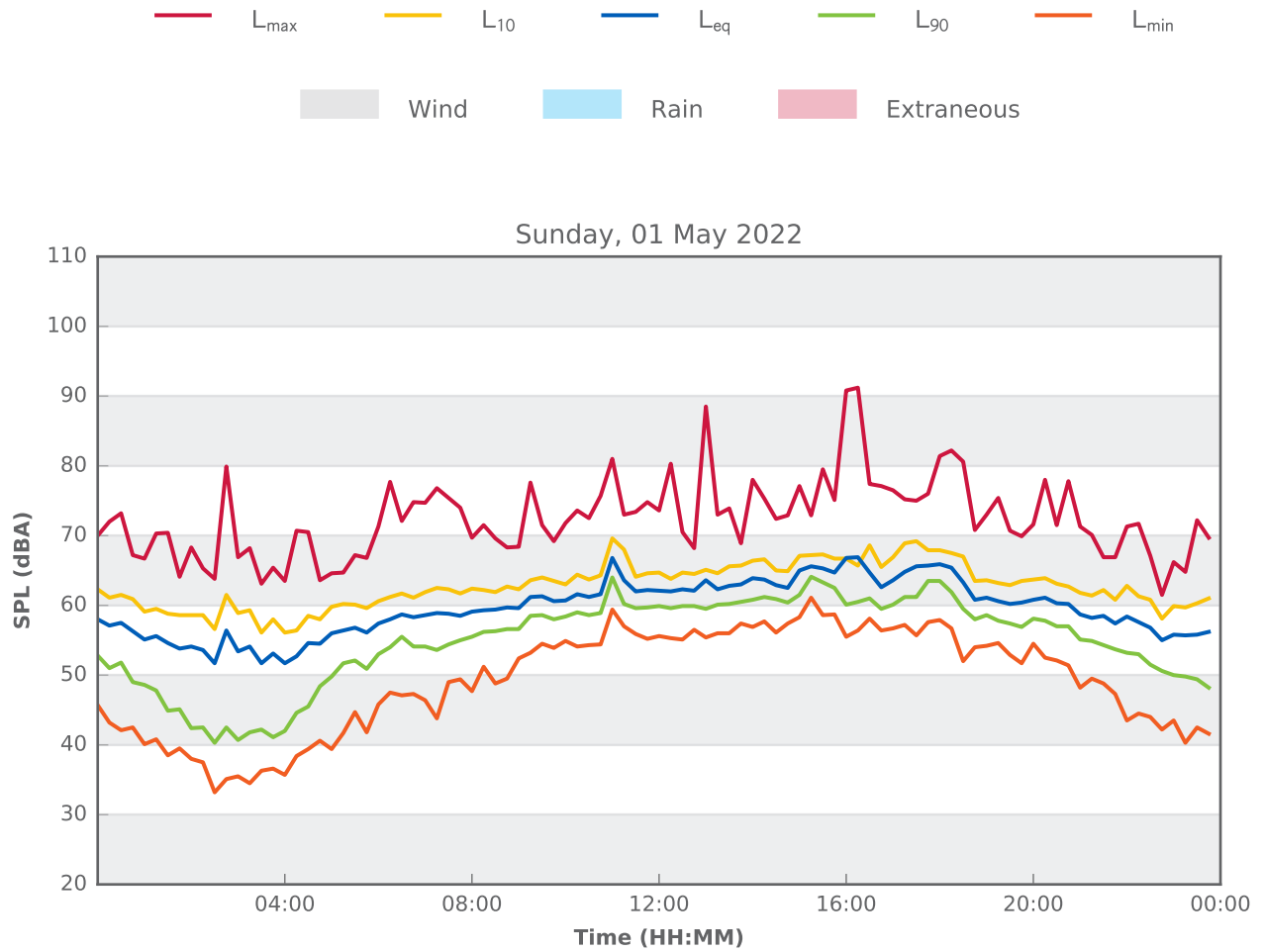
# APPENDIX C

## NOISE MONITORING CHARTS

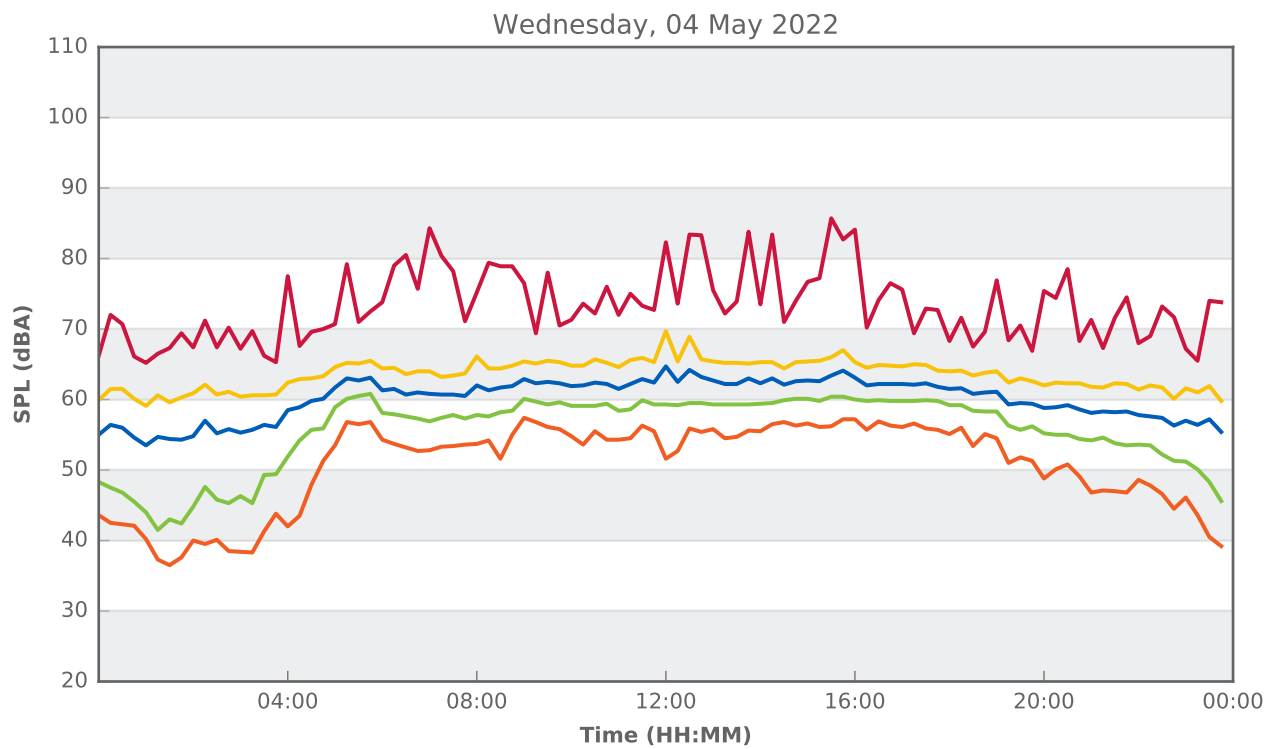
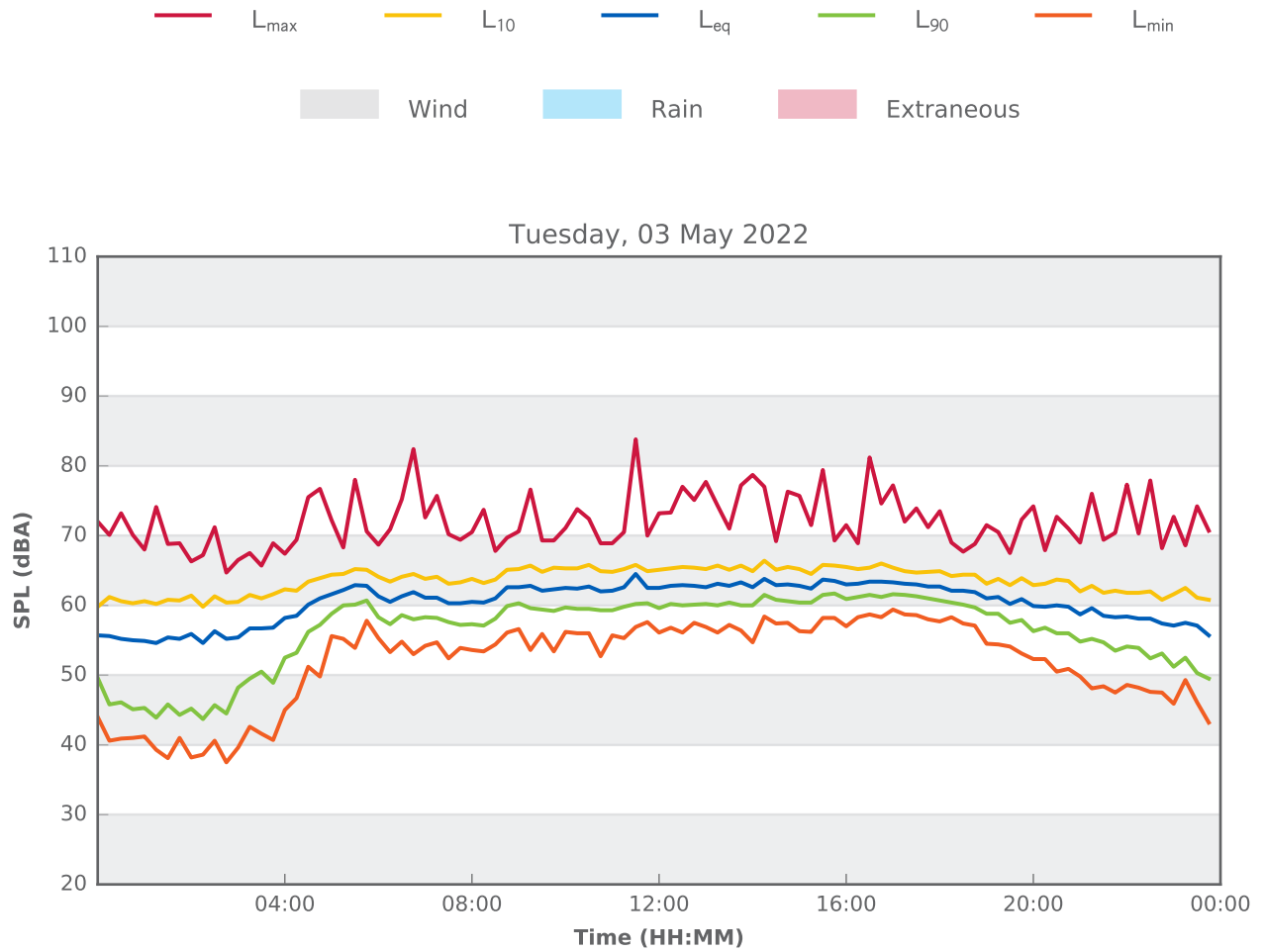
# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga



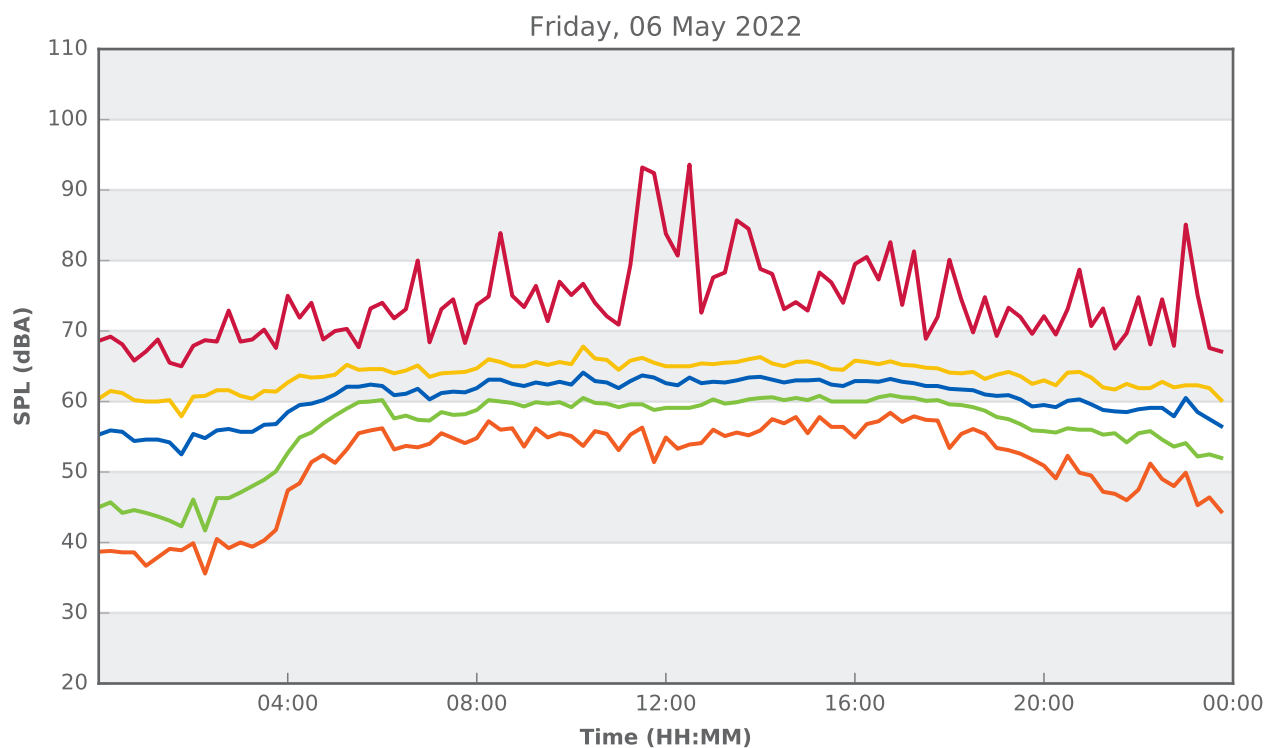
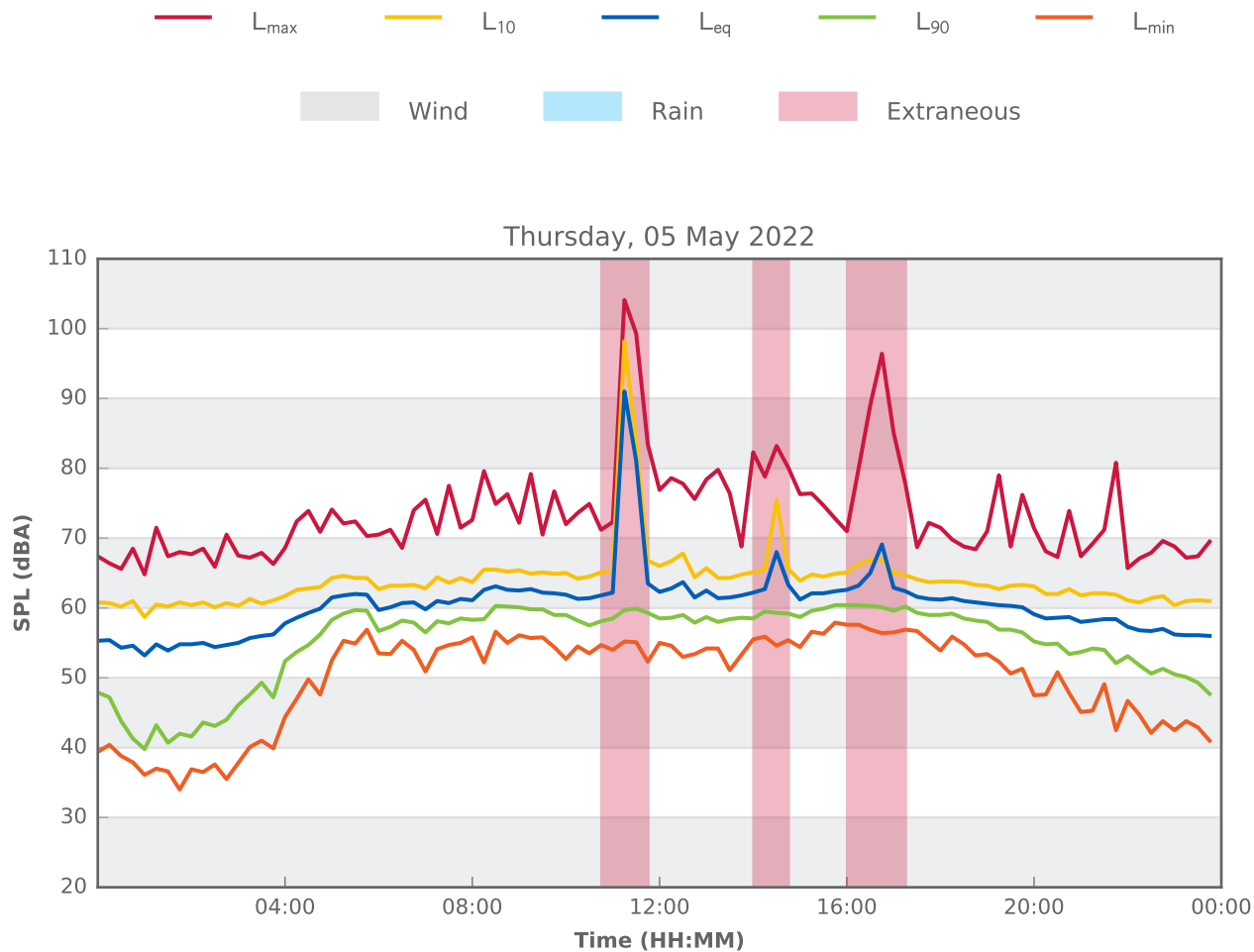
# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga



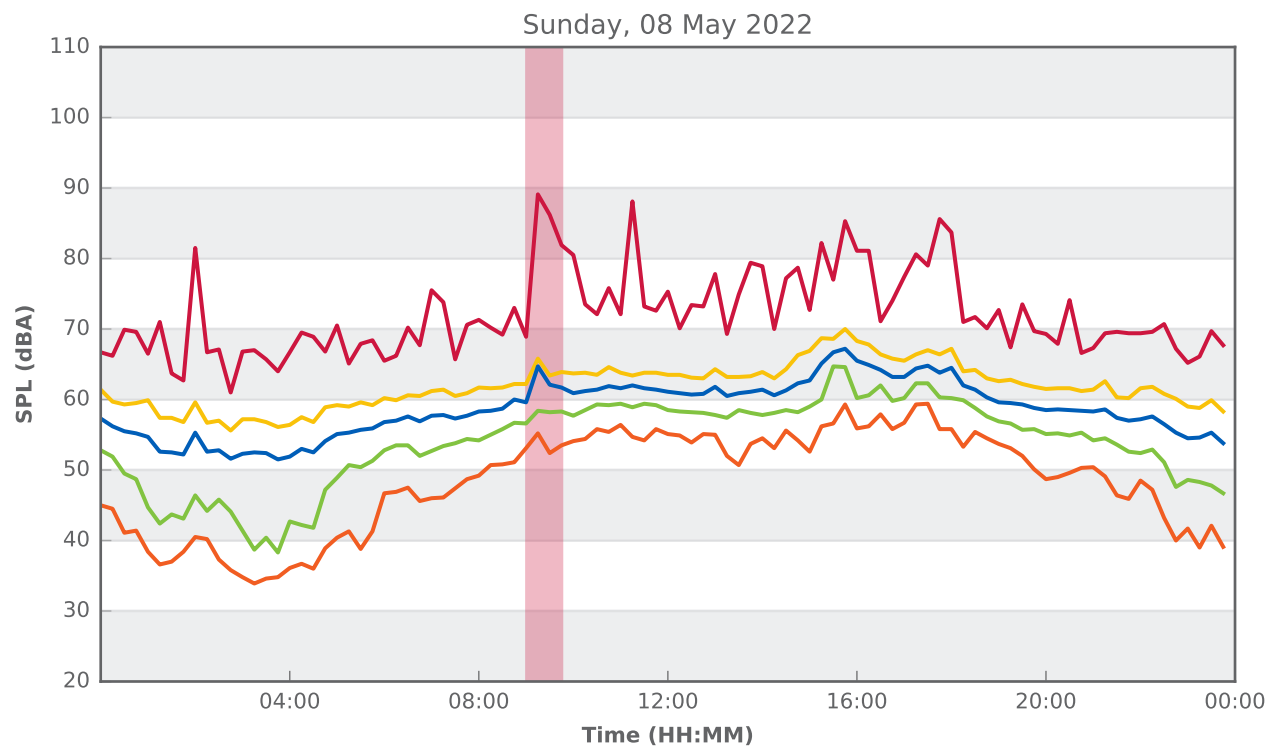
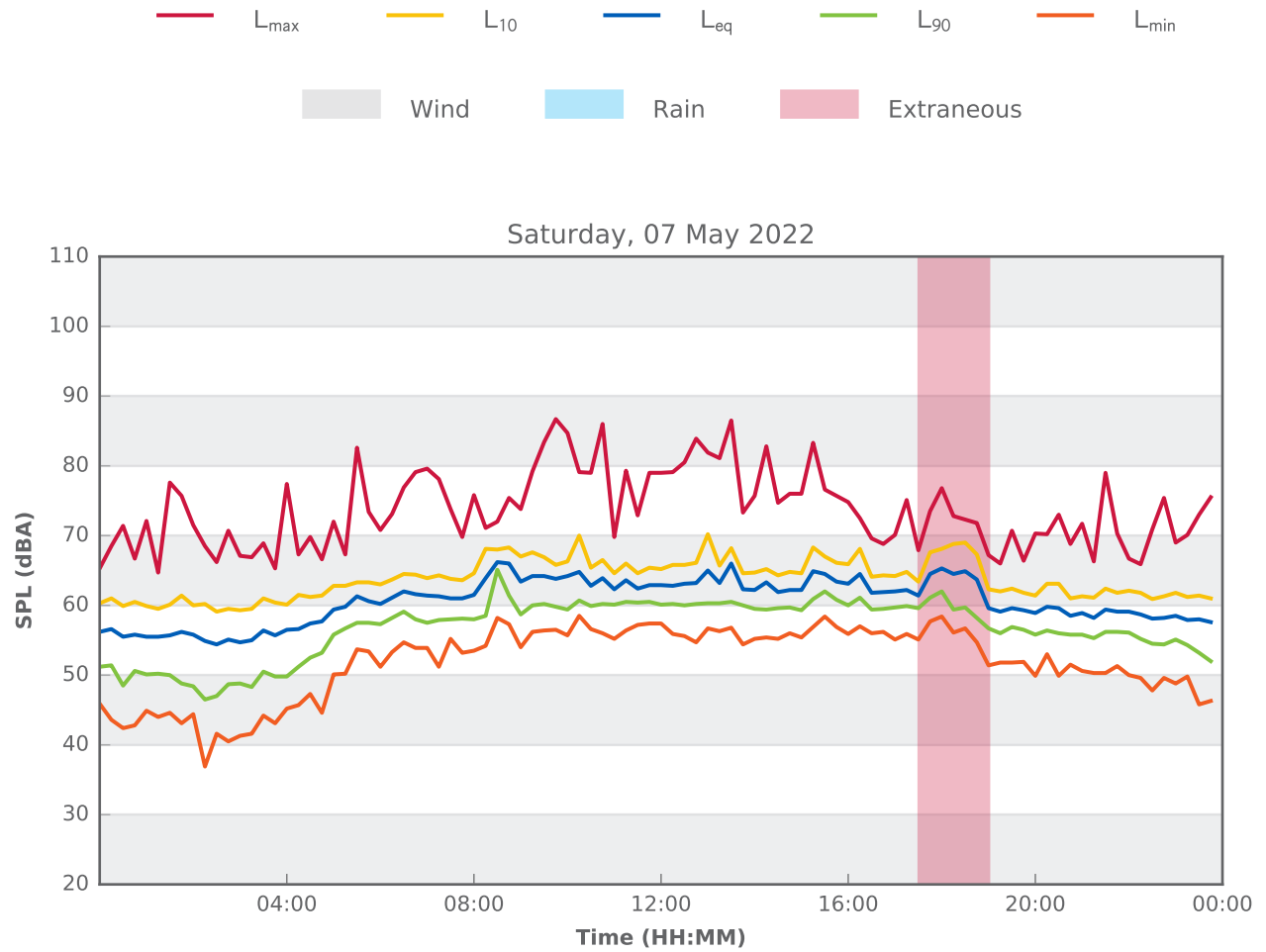
# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga



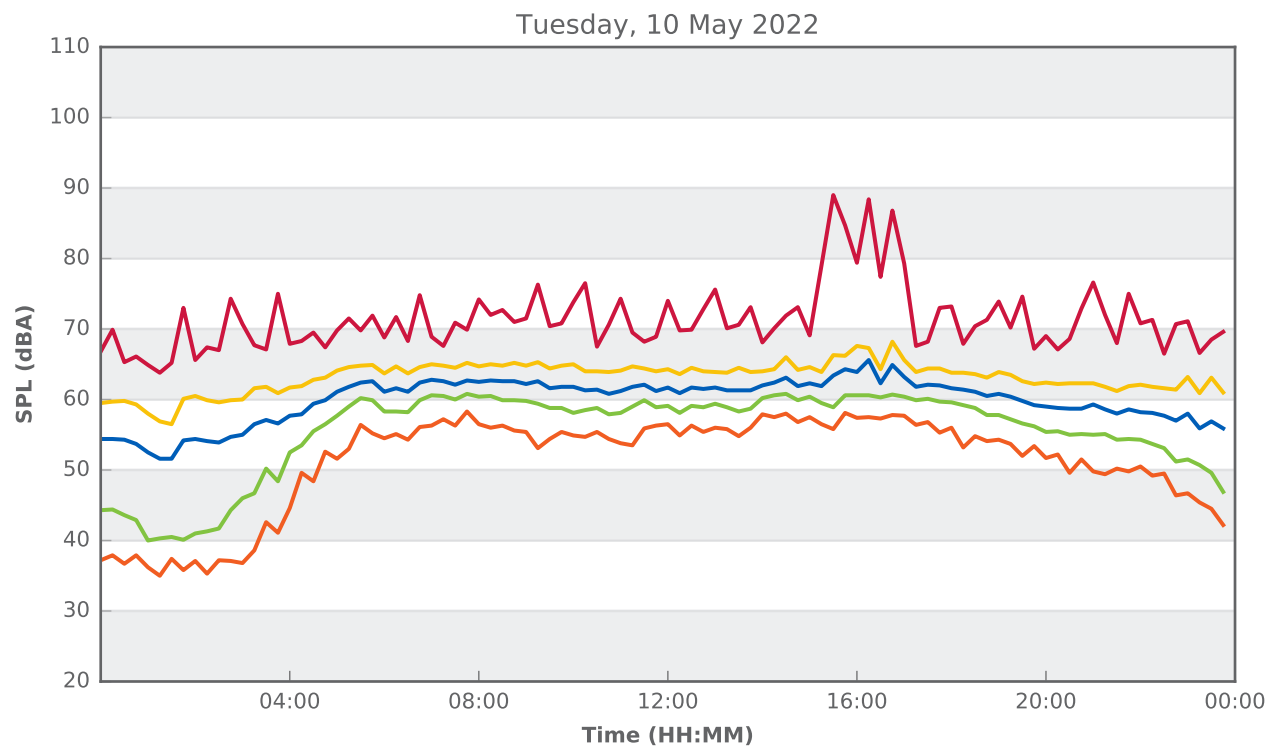
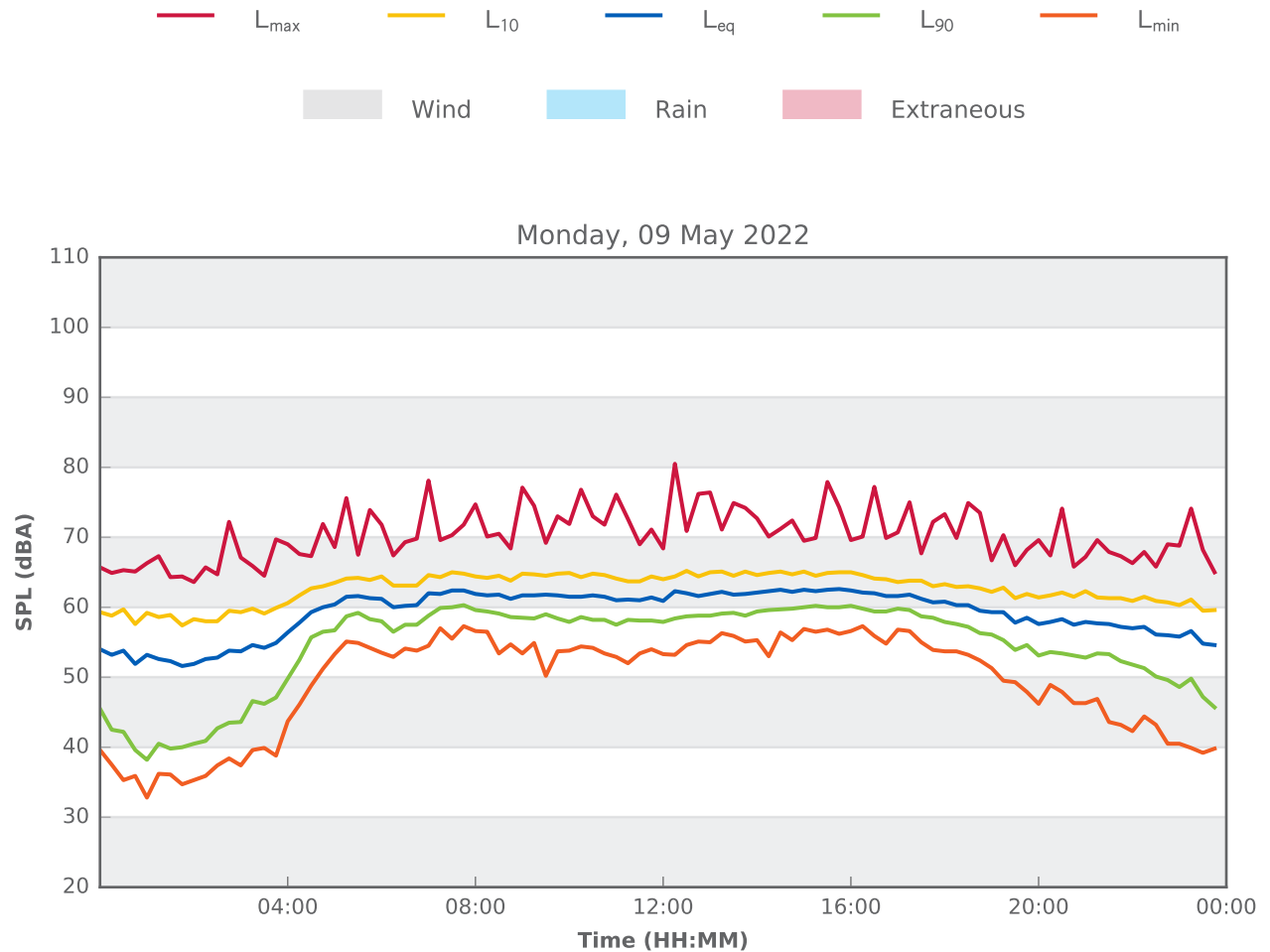
# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga



# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga

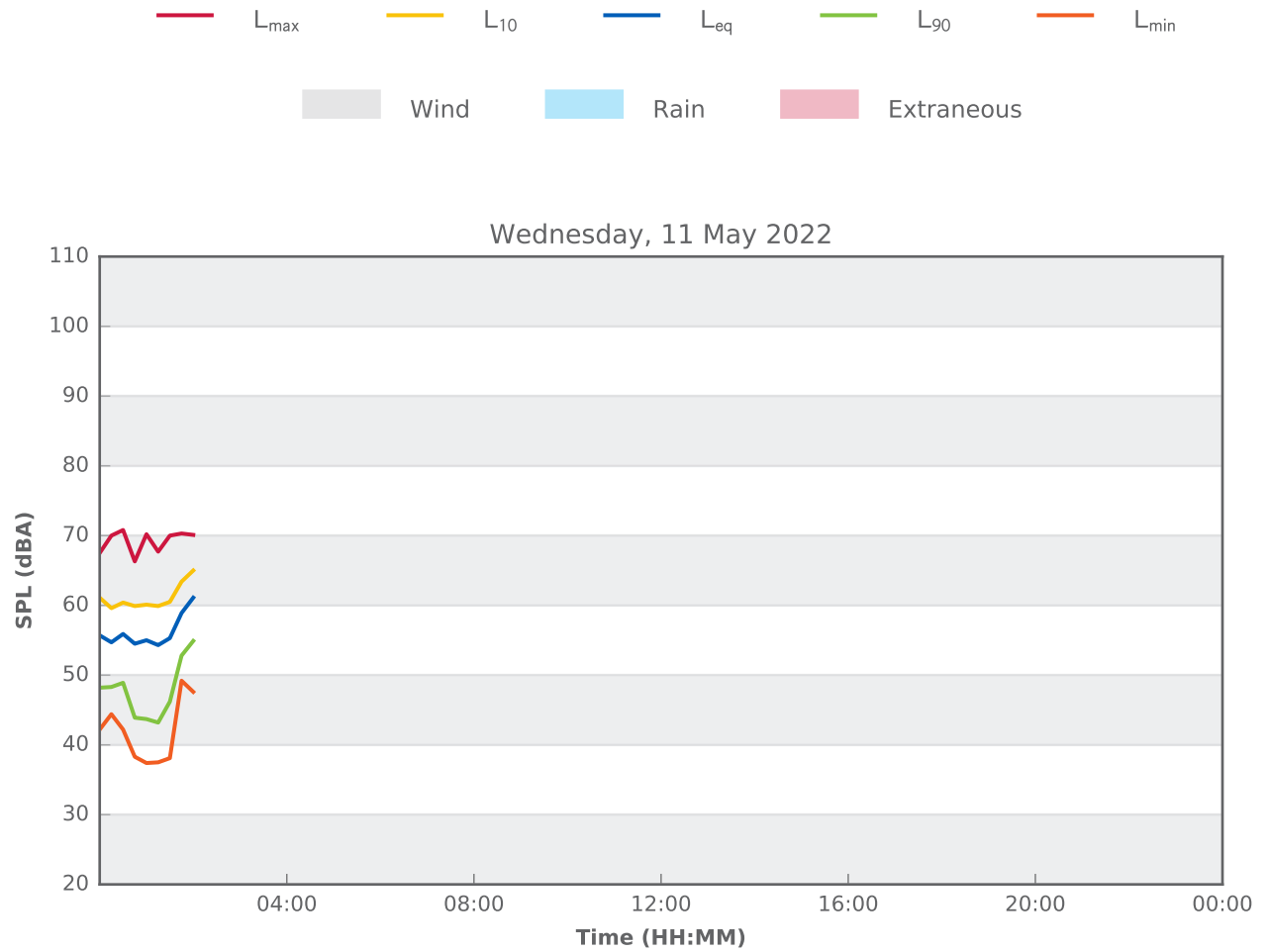


# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga

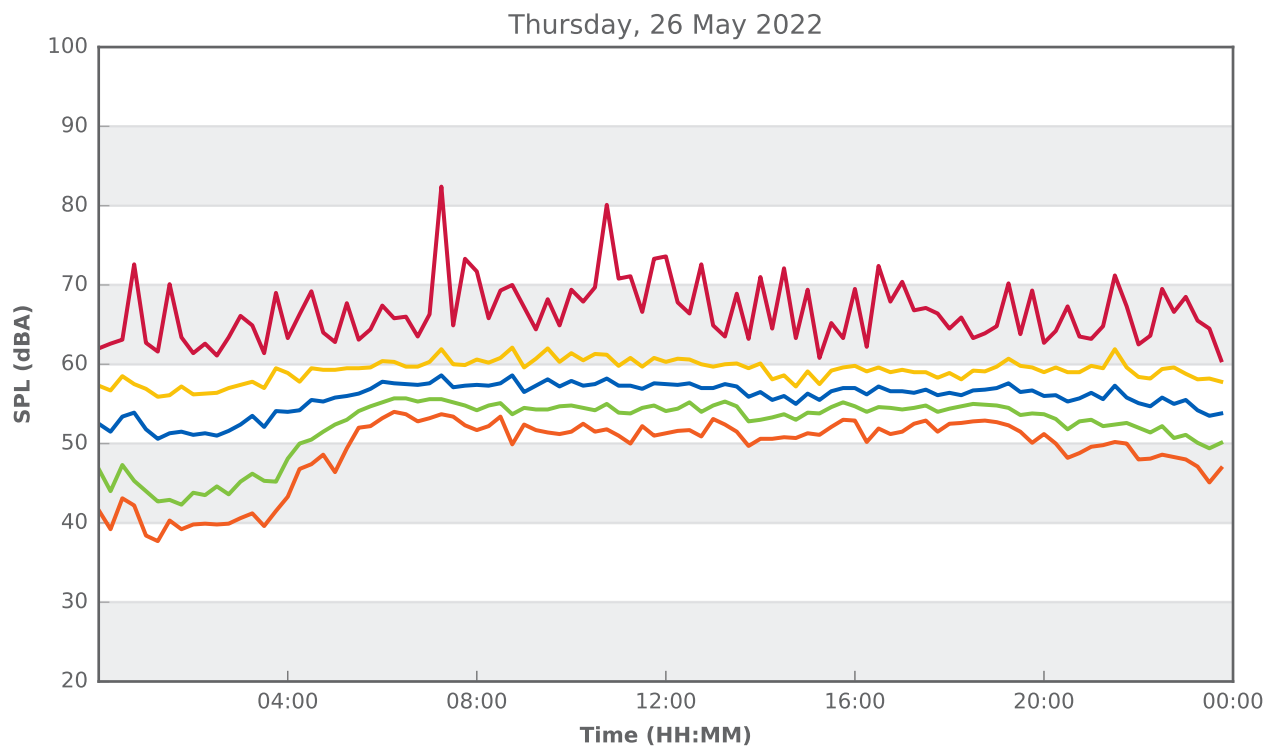
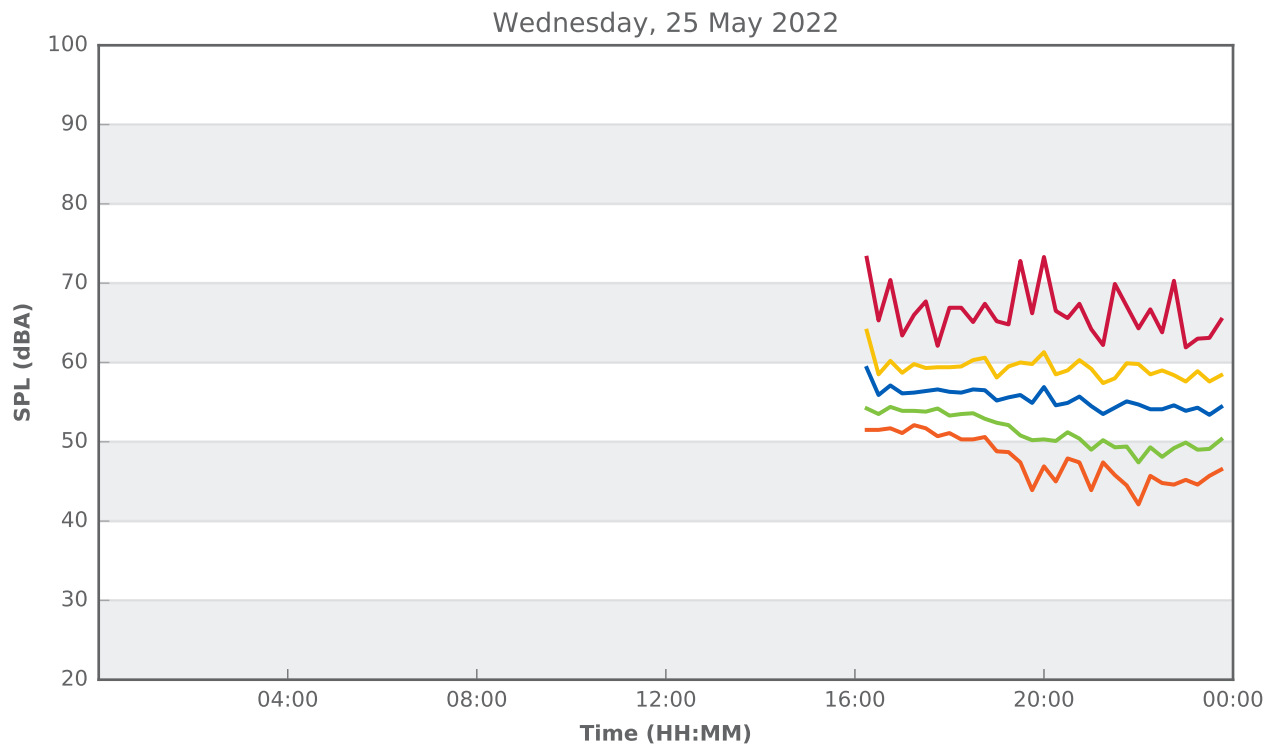




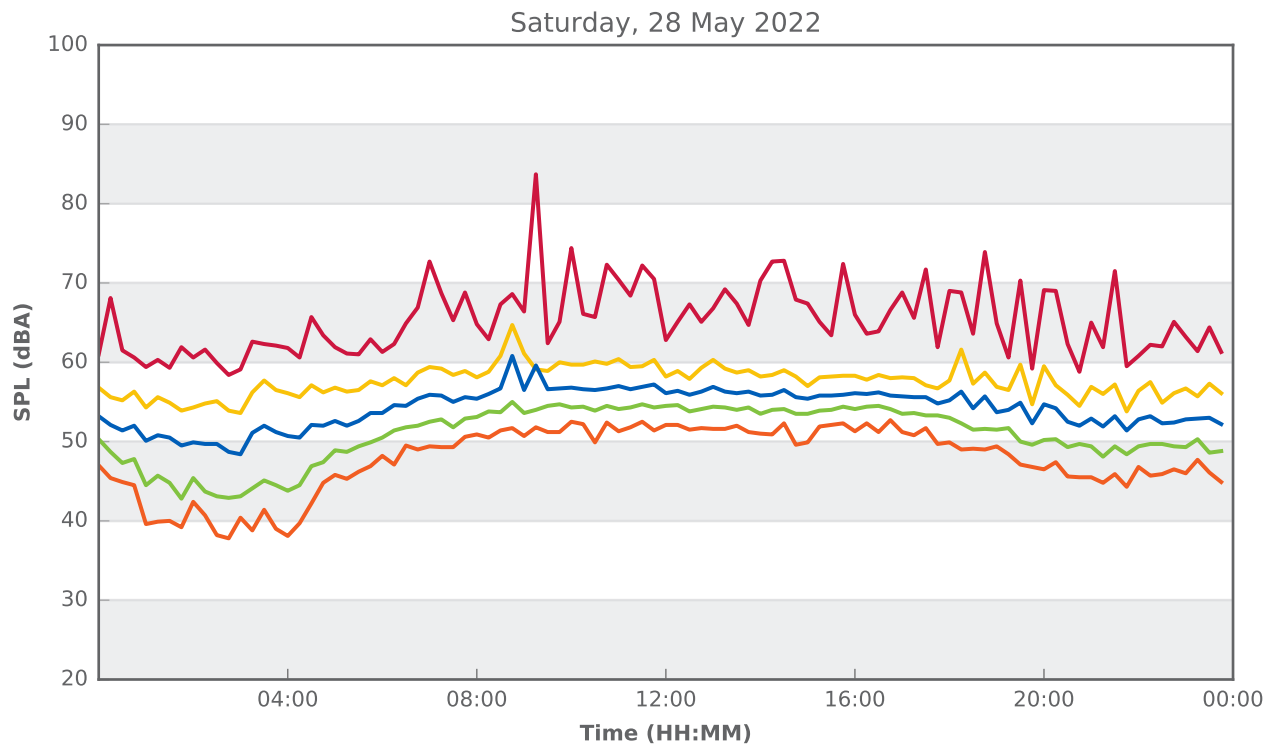
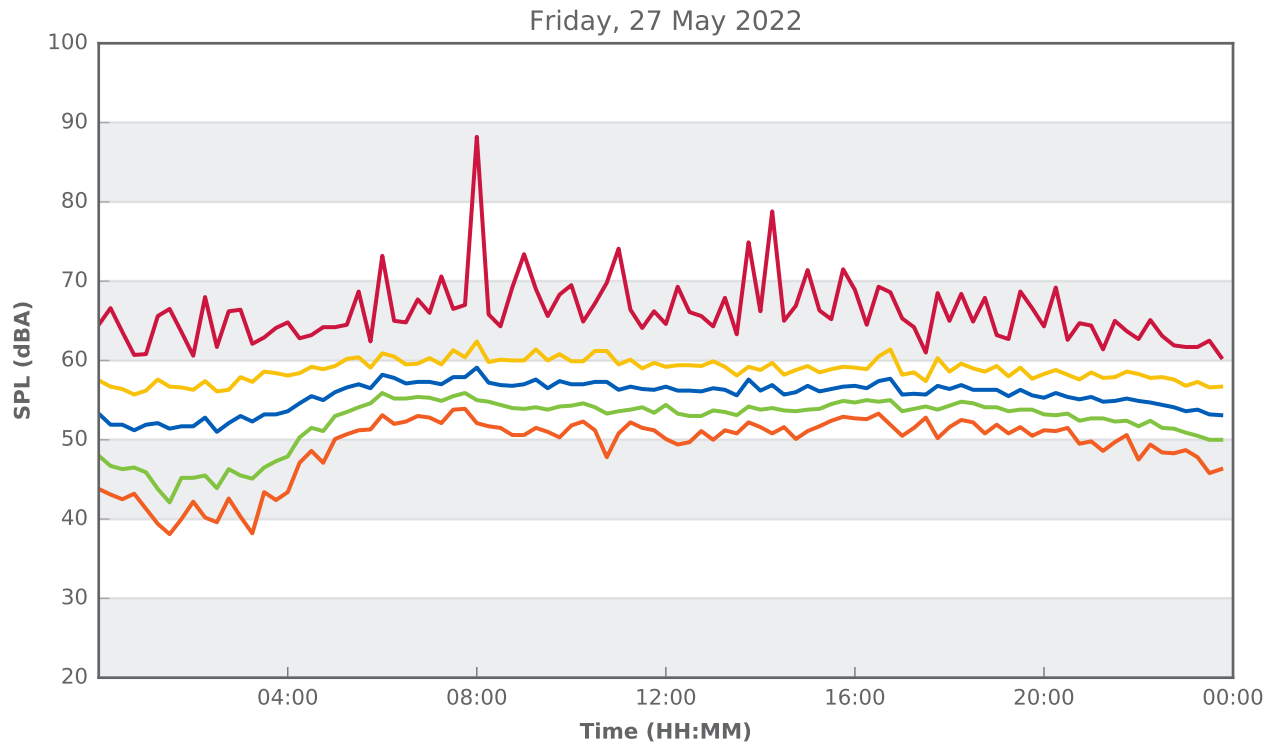
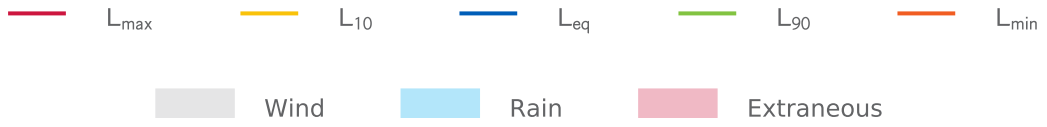
# NCA-1A-T1 - 43A Bareena Avenue, Wahroonga



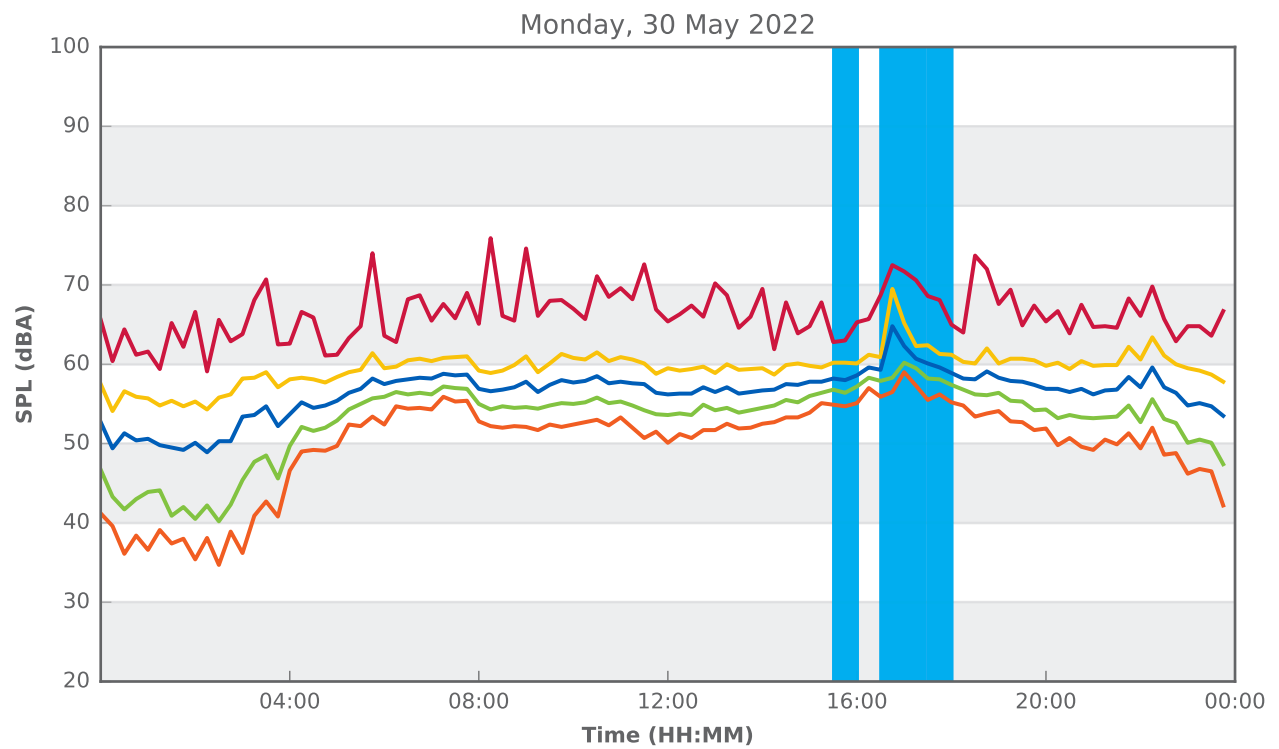
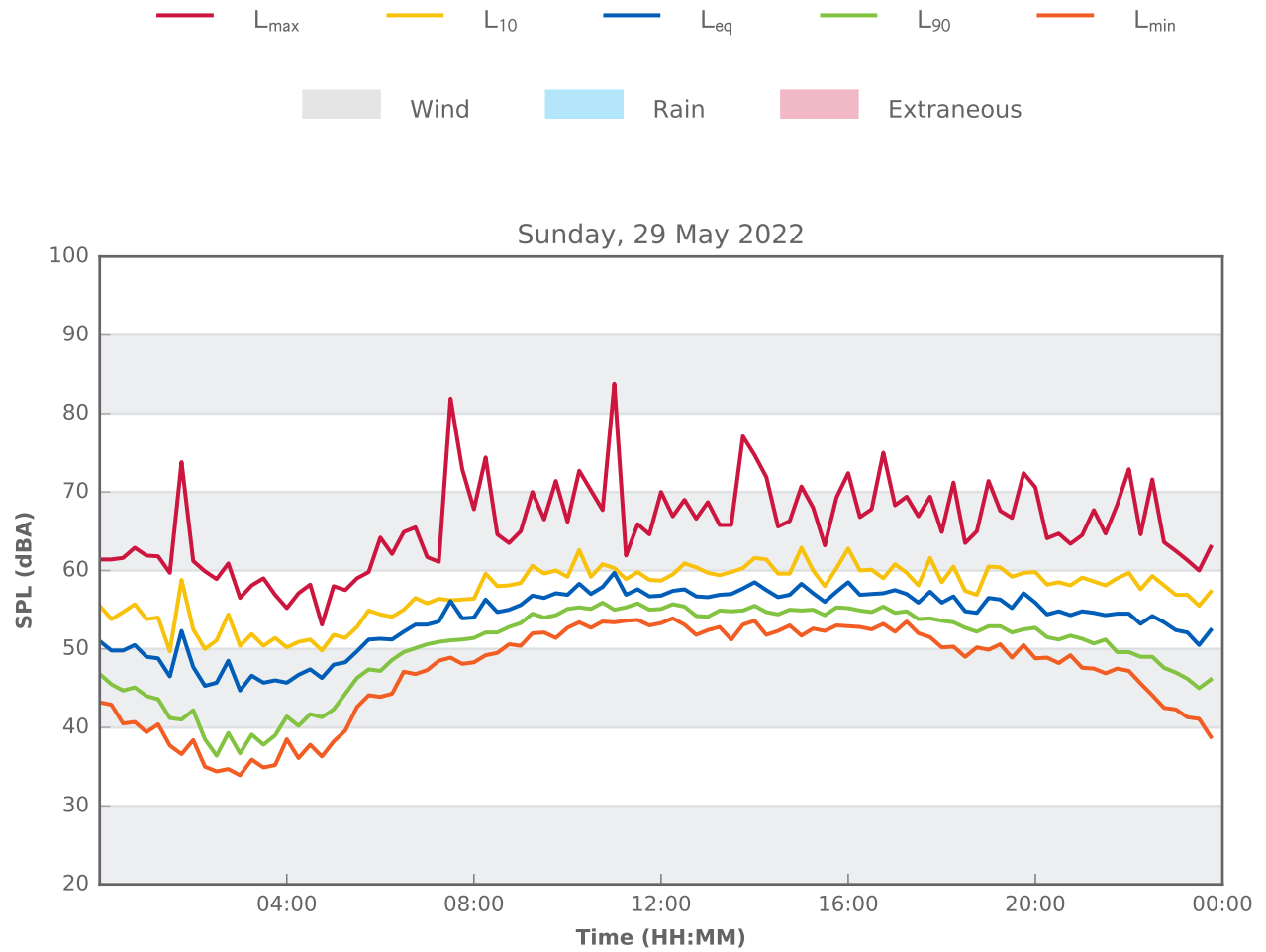
# NCA-2A-T2 - 118A Coonanbarra Road, Wairoa



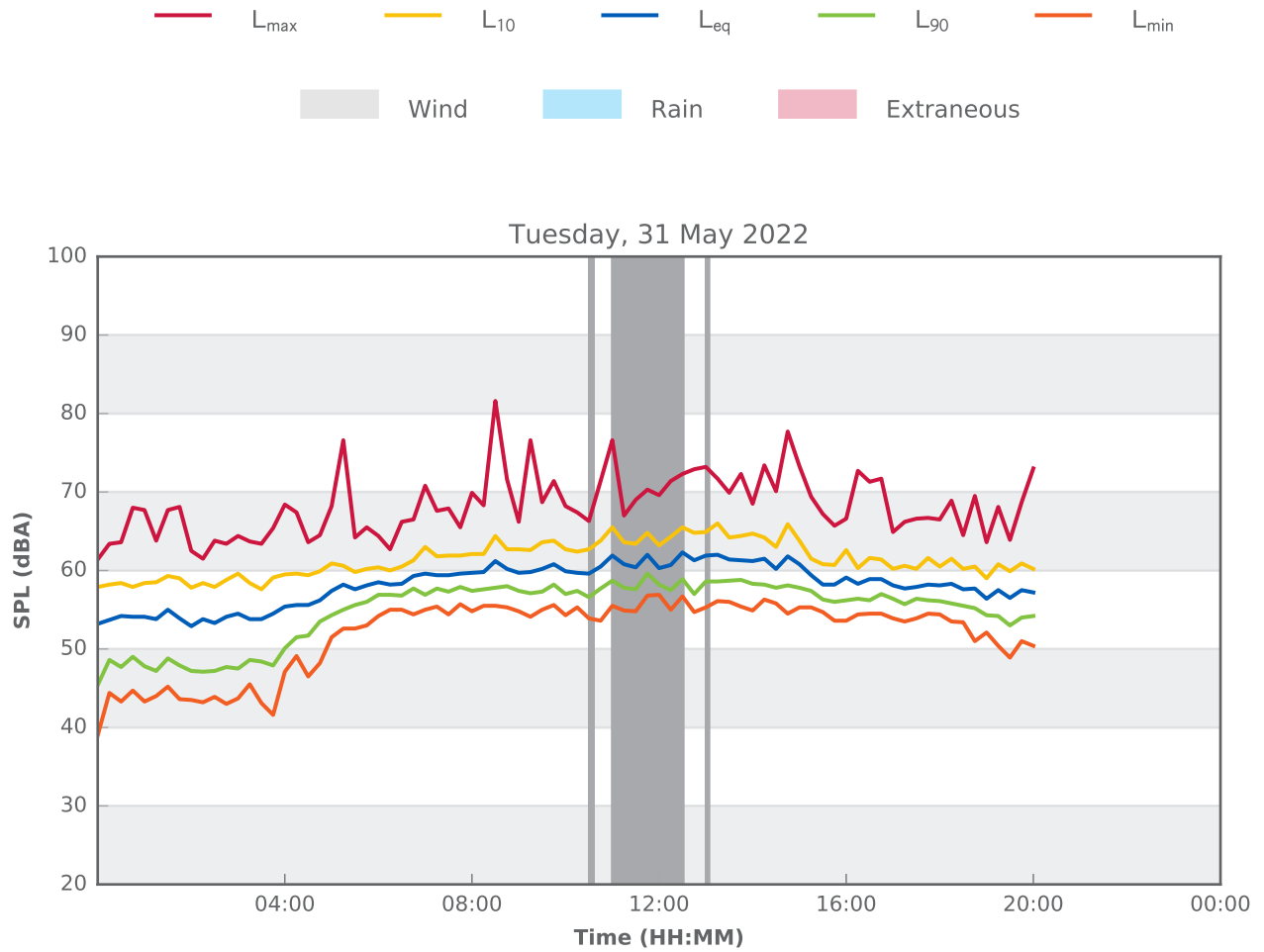
# NCA-2A-T2 - 118A Coonanbarra Road, Wahroonga



# NCA-2A-T2 - 118A Coonanbarra Road, Wahroonga



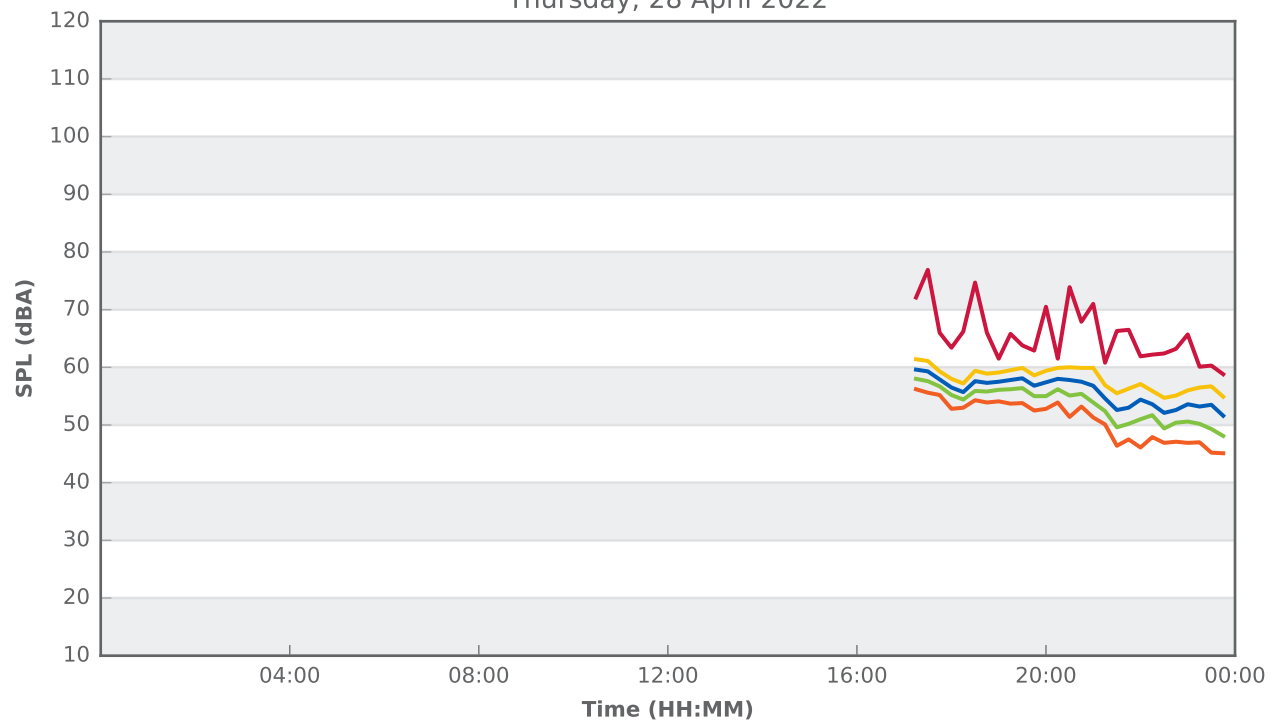
## NCA-2A-T2 - 118A Coonanbarra Road, Wahroonga



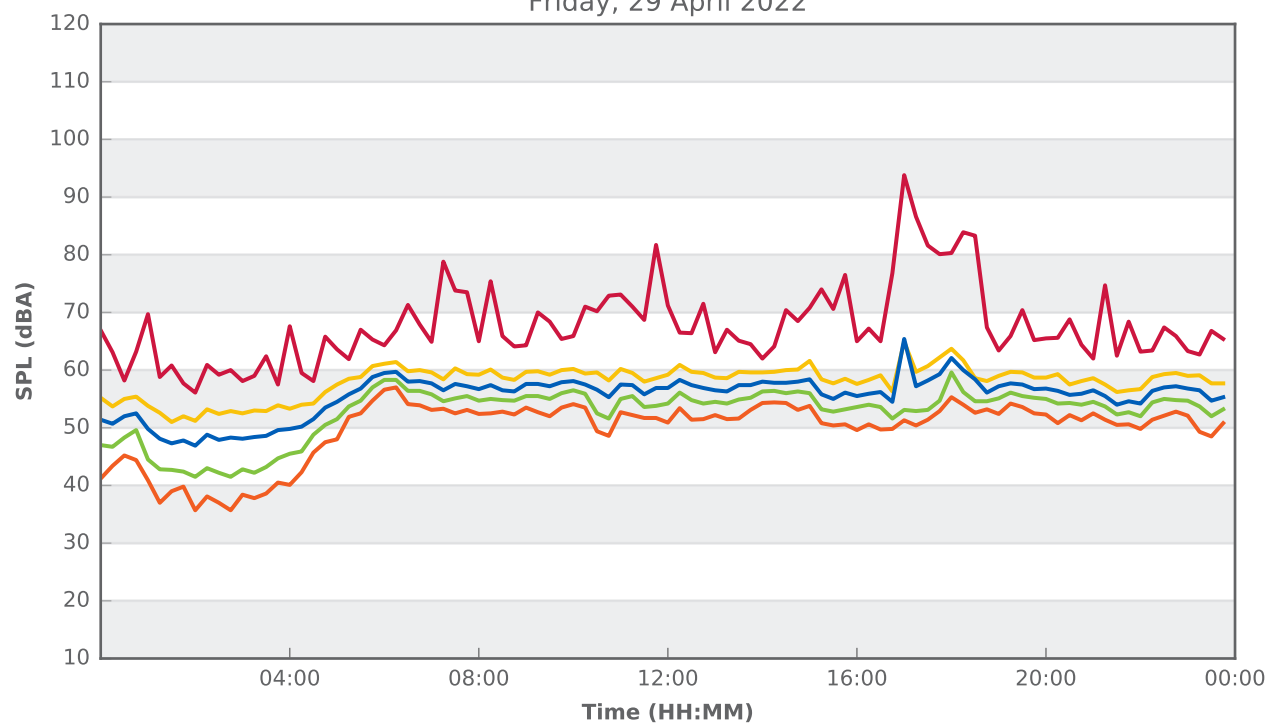
# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga



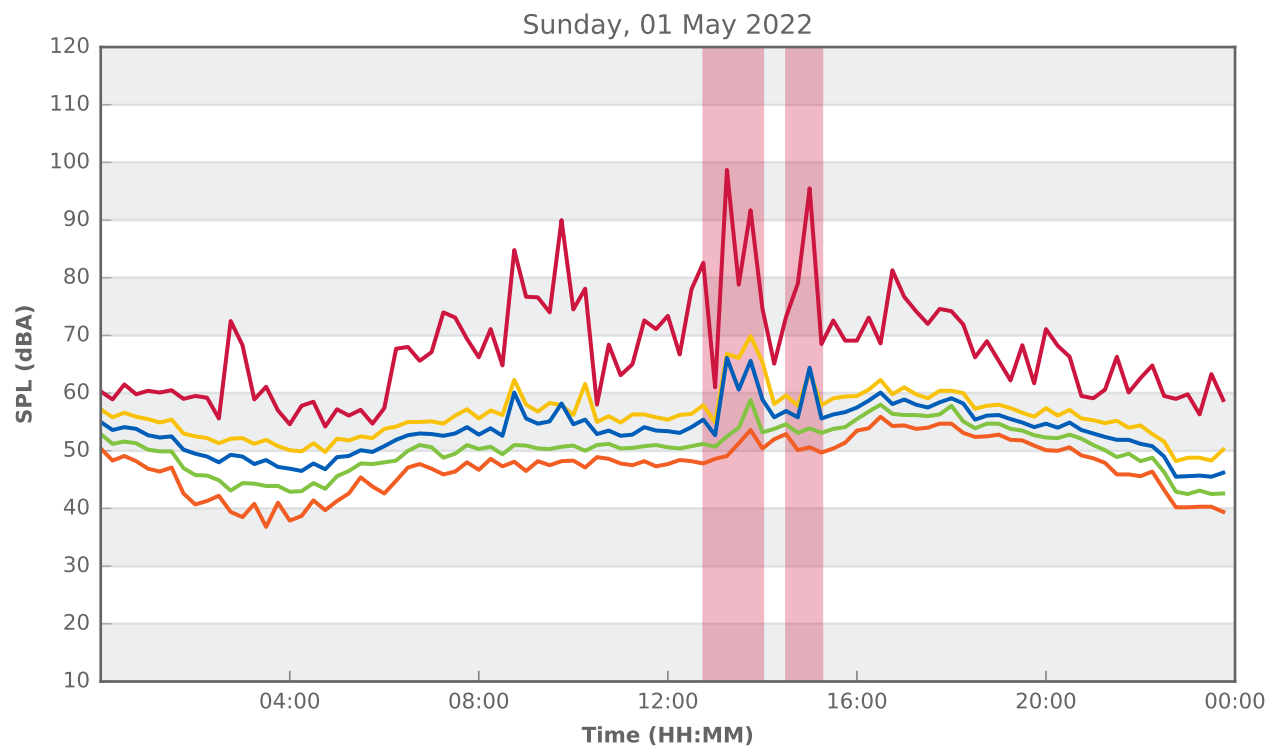
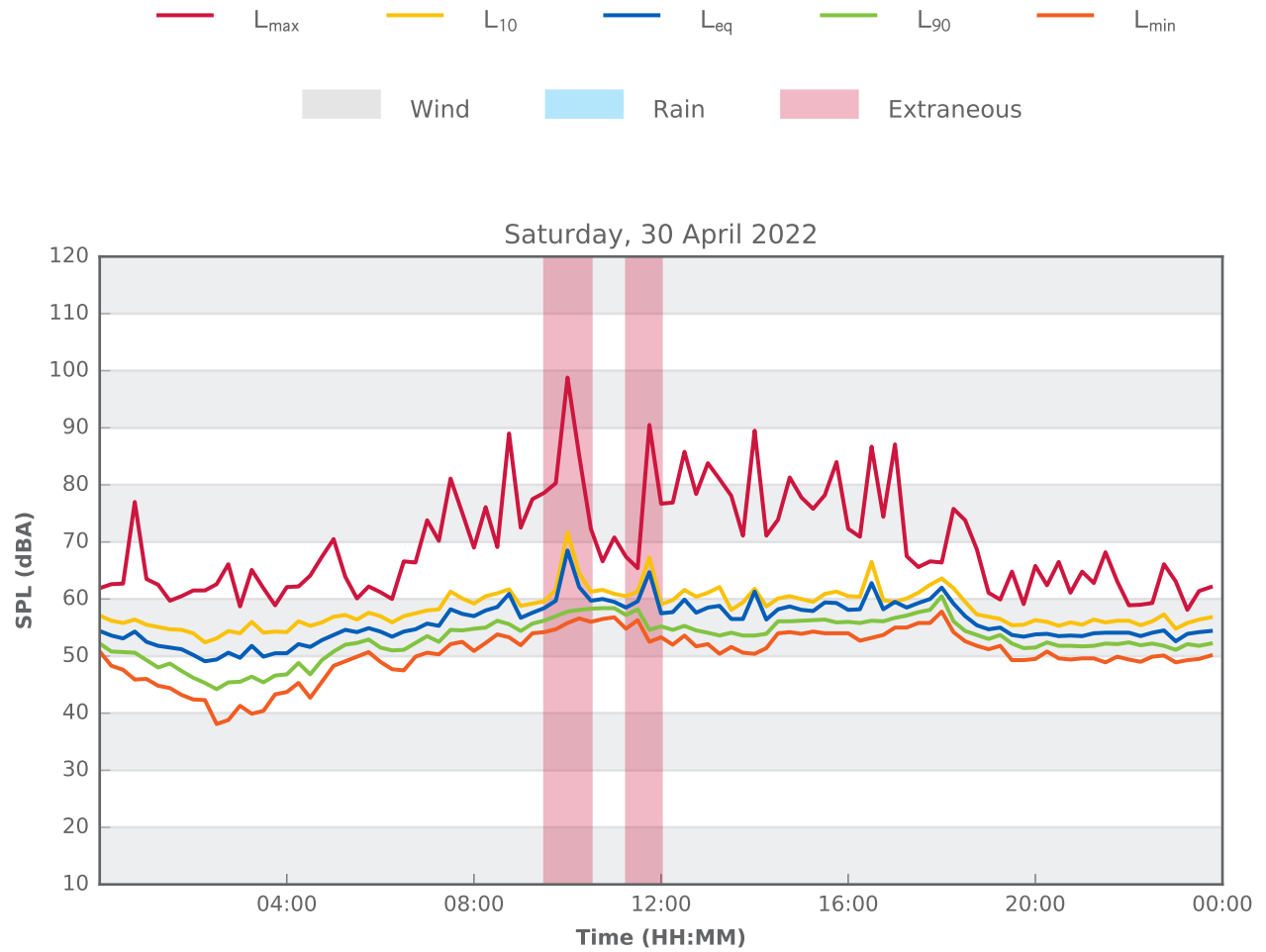
Thursday, 28 April 2022



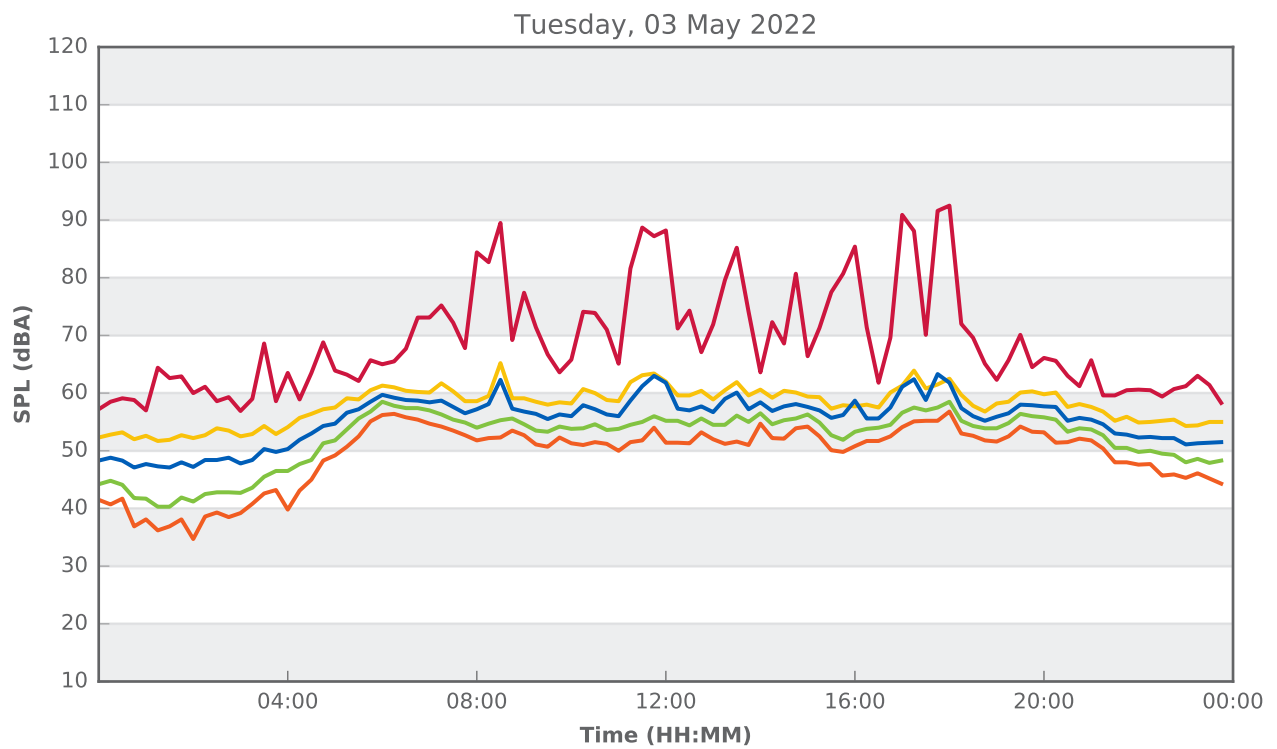
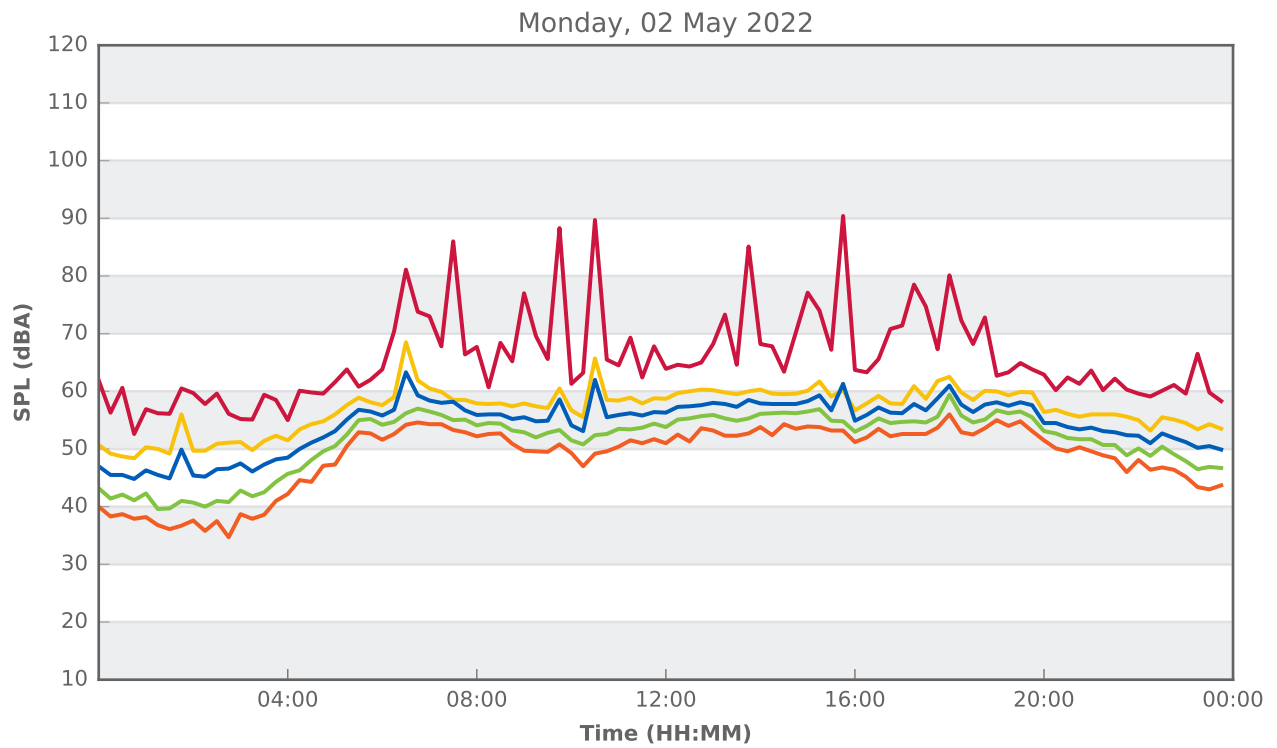
Friday, 29 April 2022



# NCA-2D-T3 - 22 Woonona Avenue, Wairoa

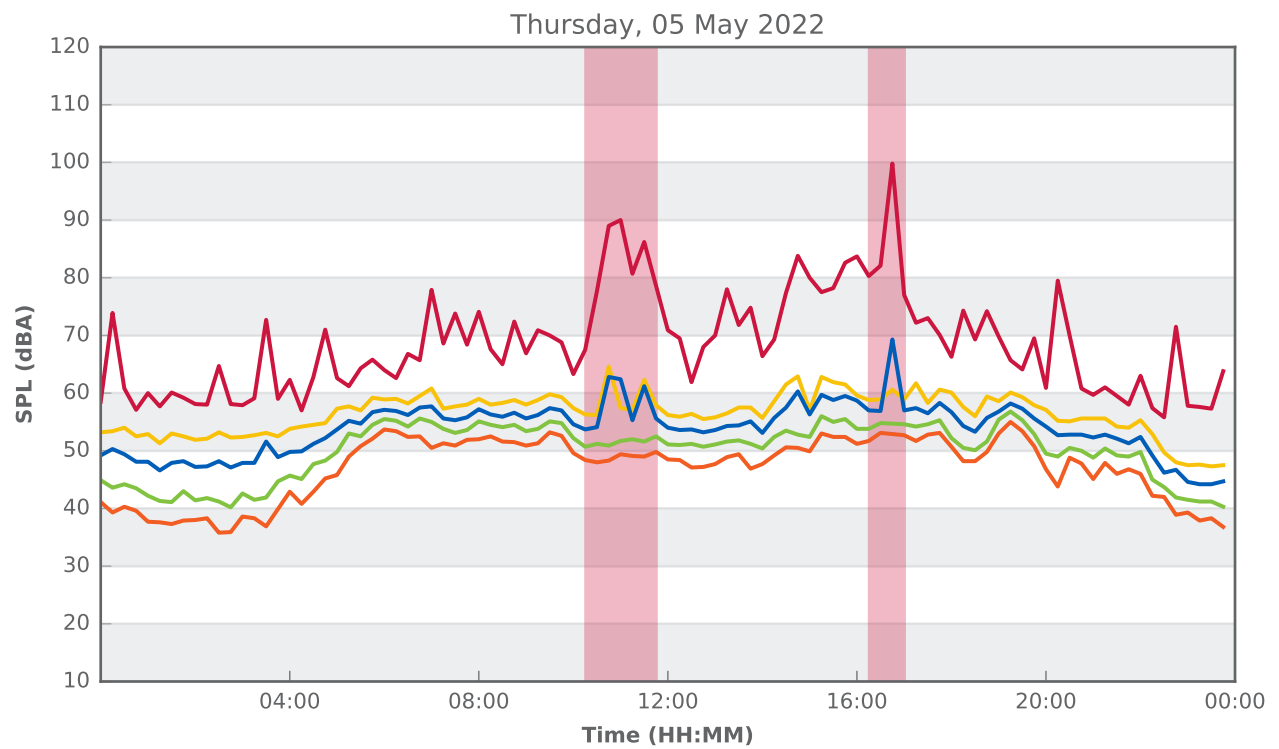
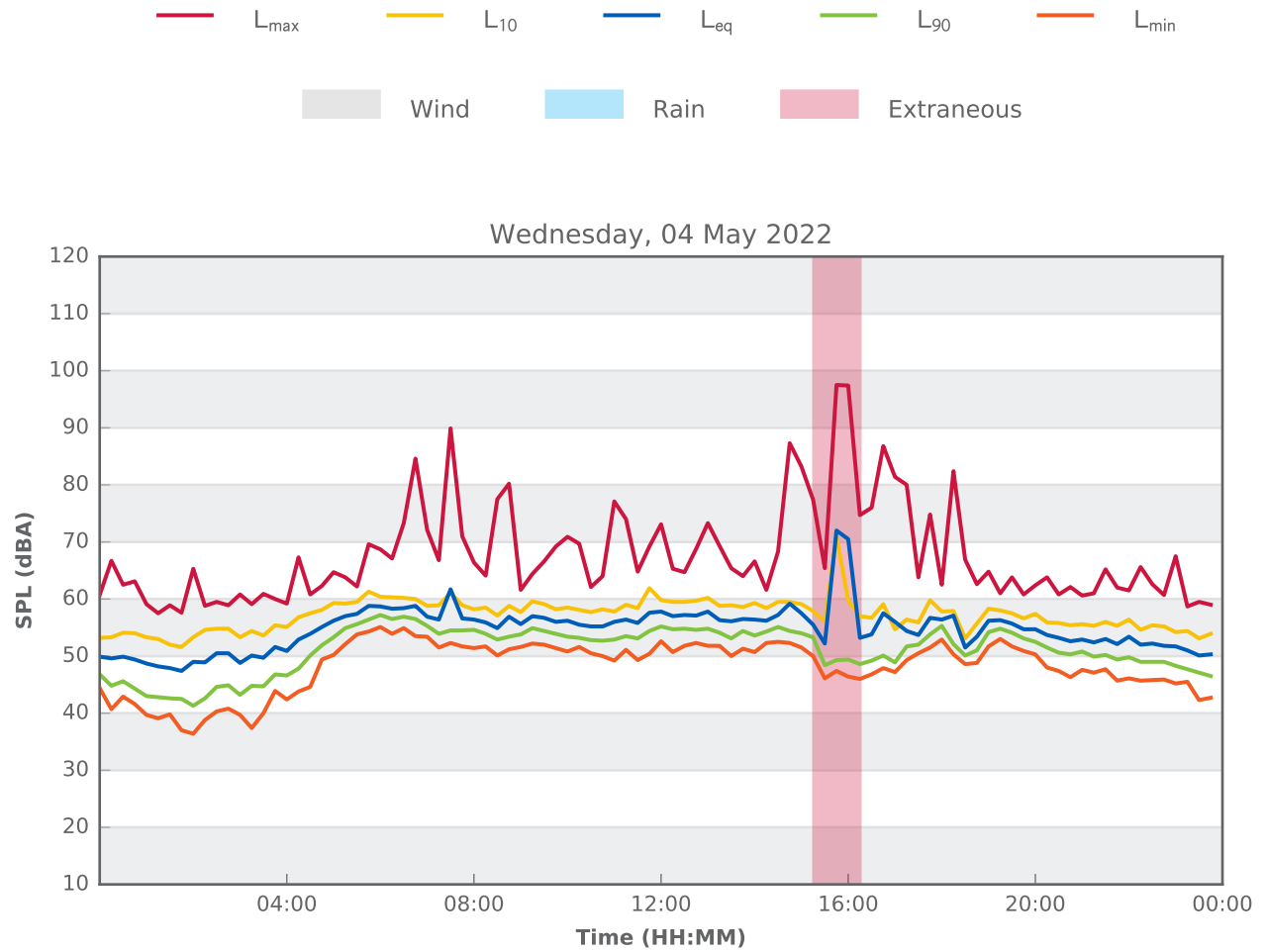


# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga

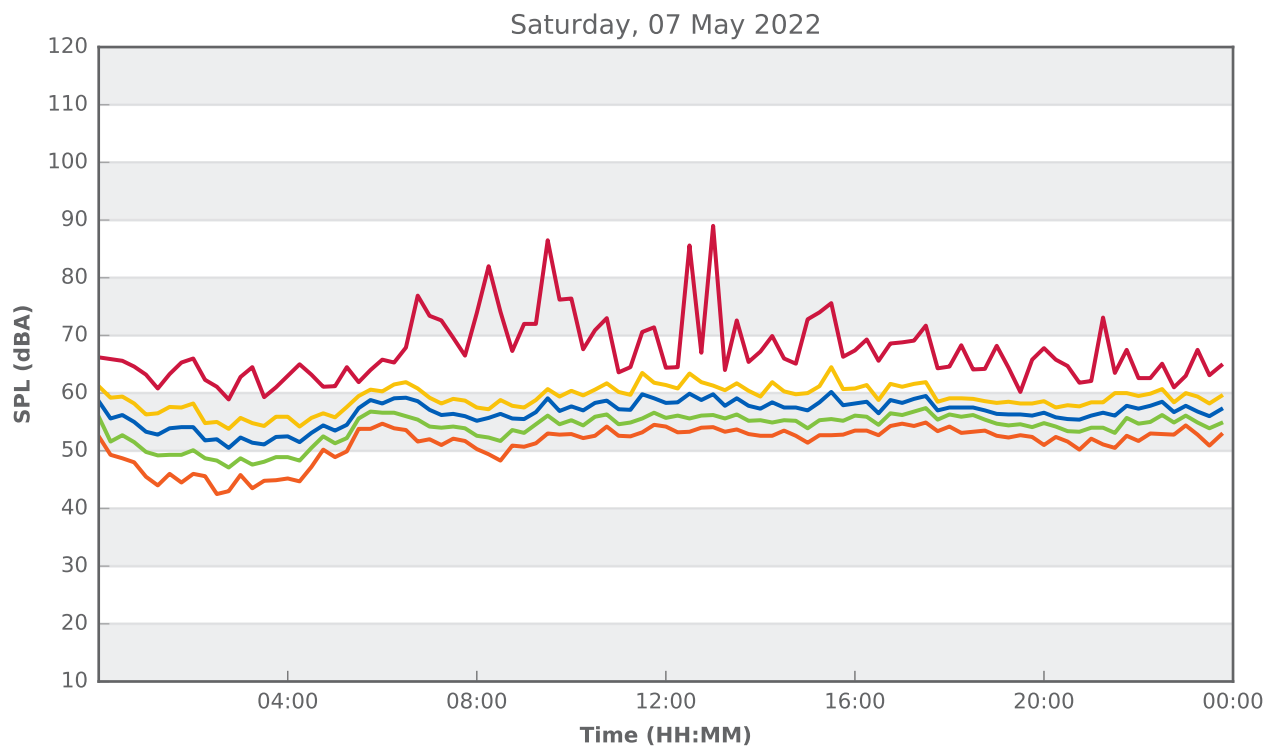
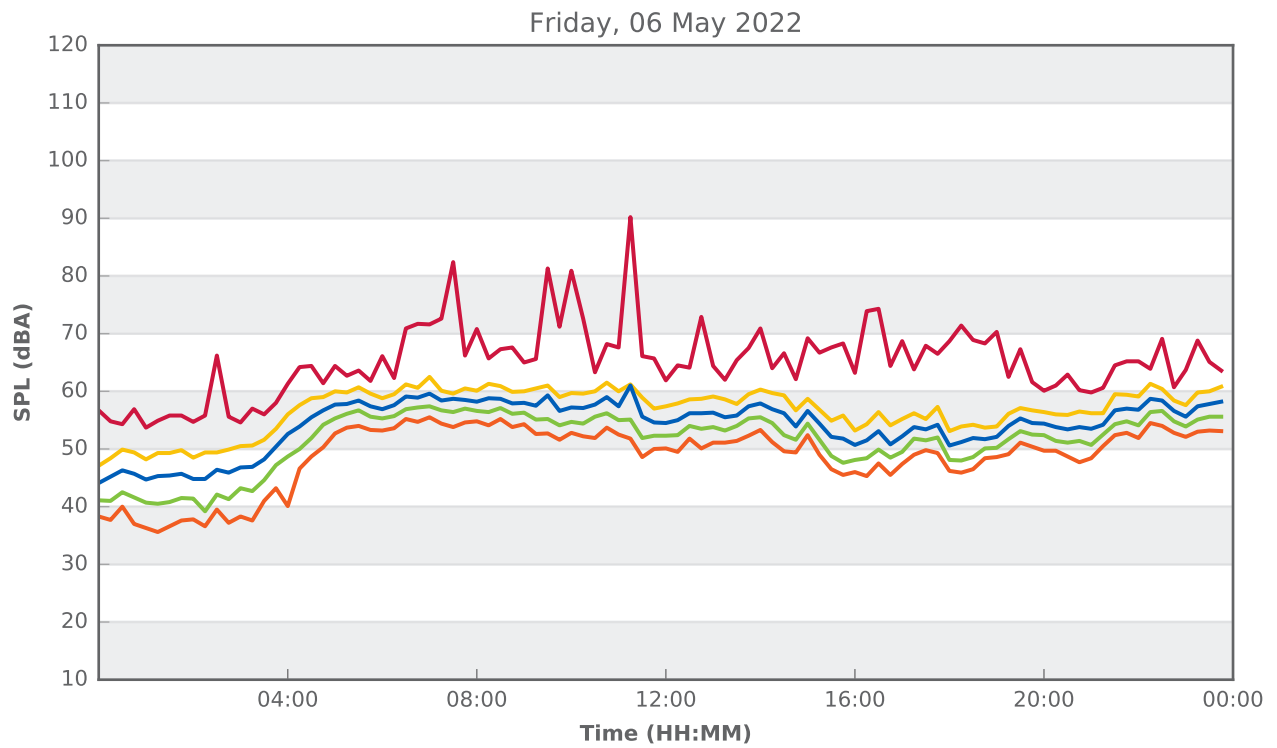




# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga

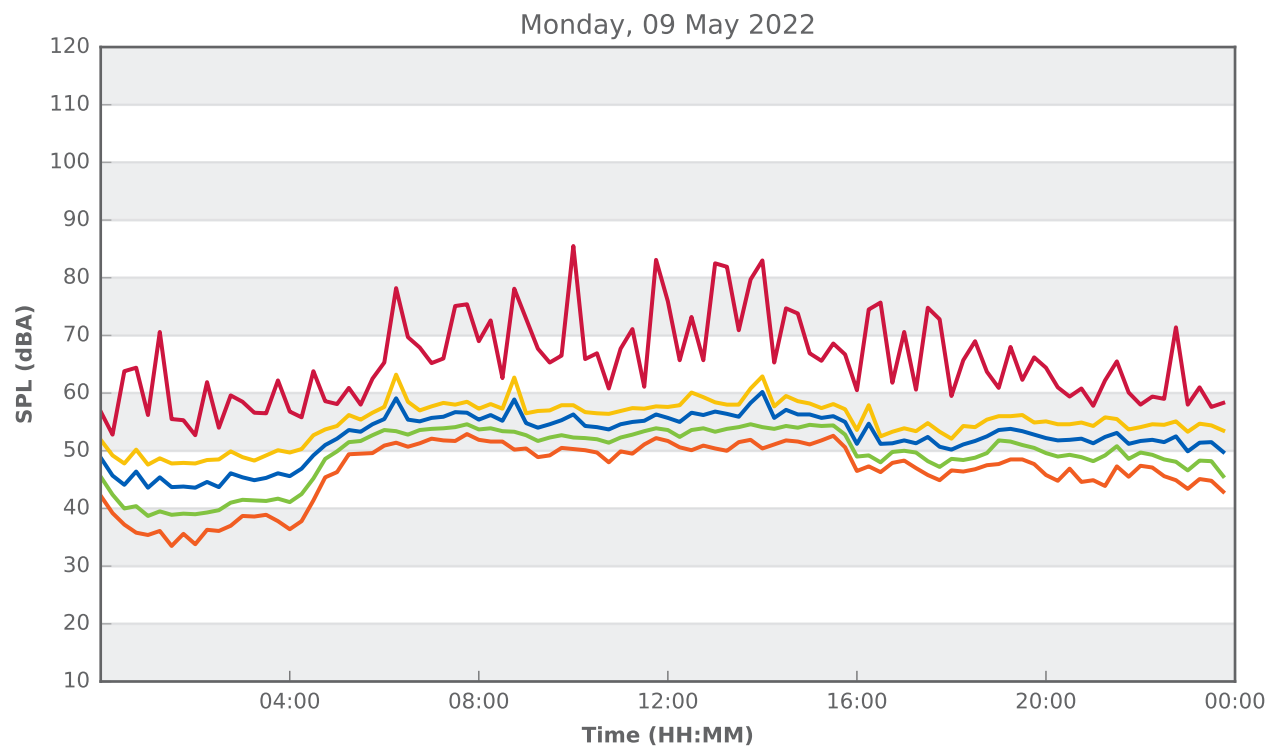
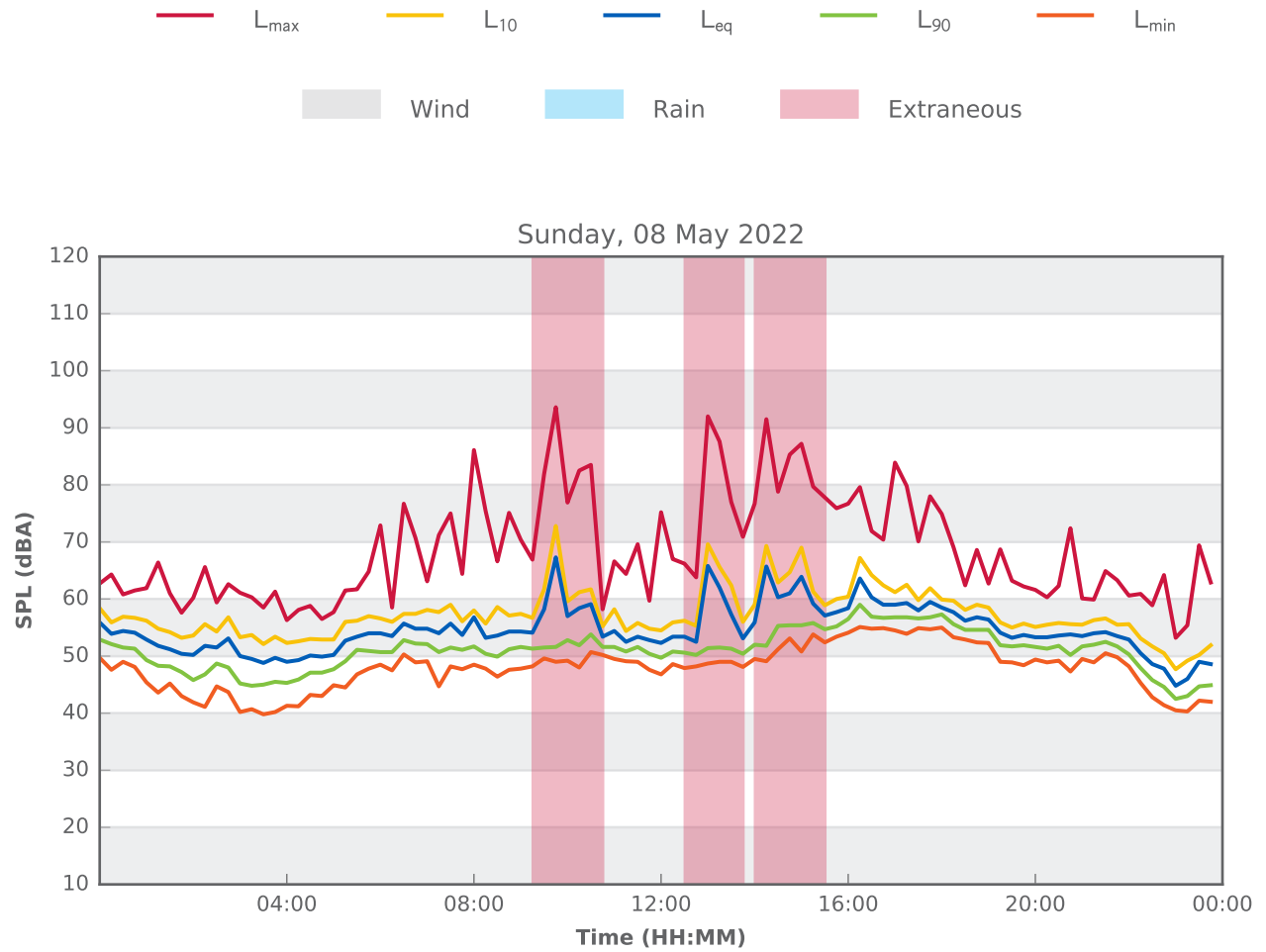


# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga

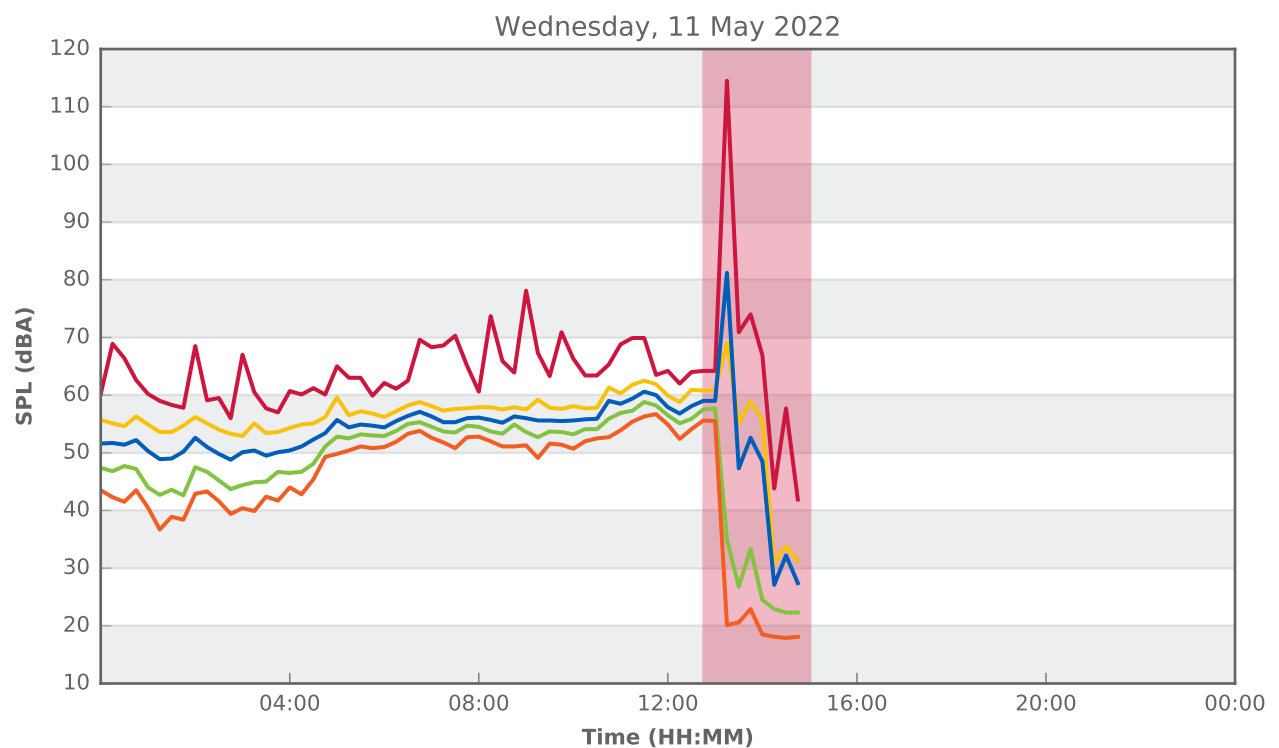
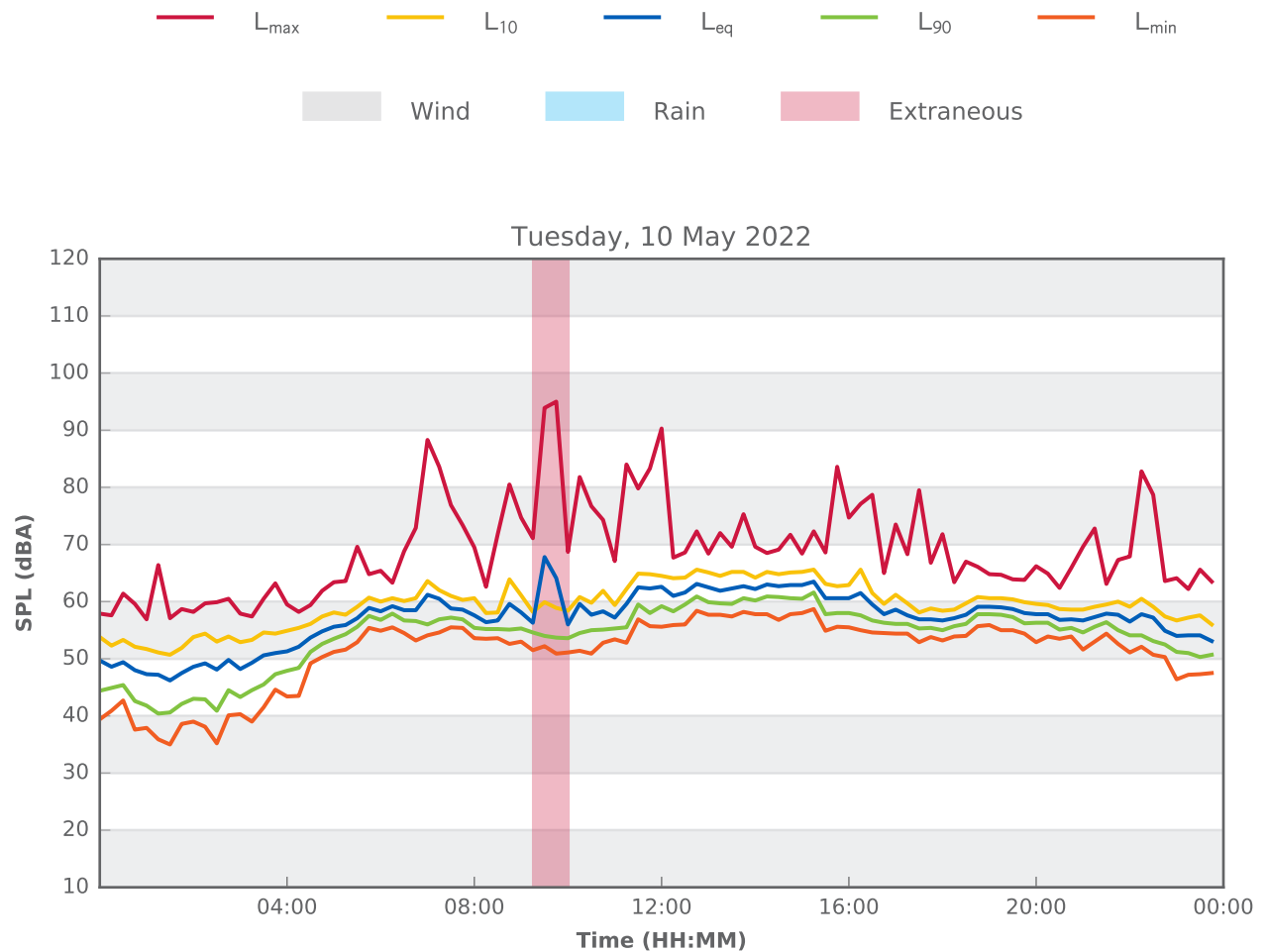




# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga



# NCA-2D-T3 - 22 Woonona Avenue, Wahroonga

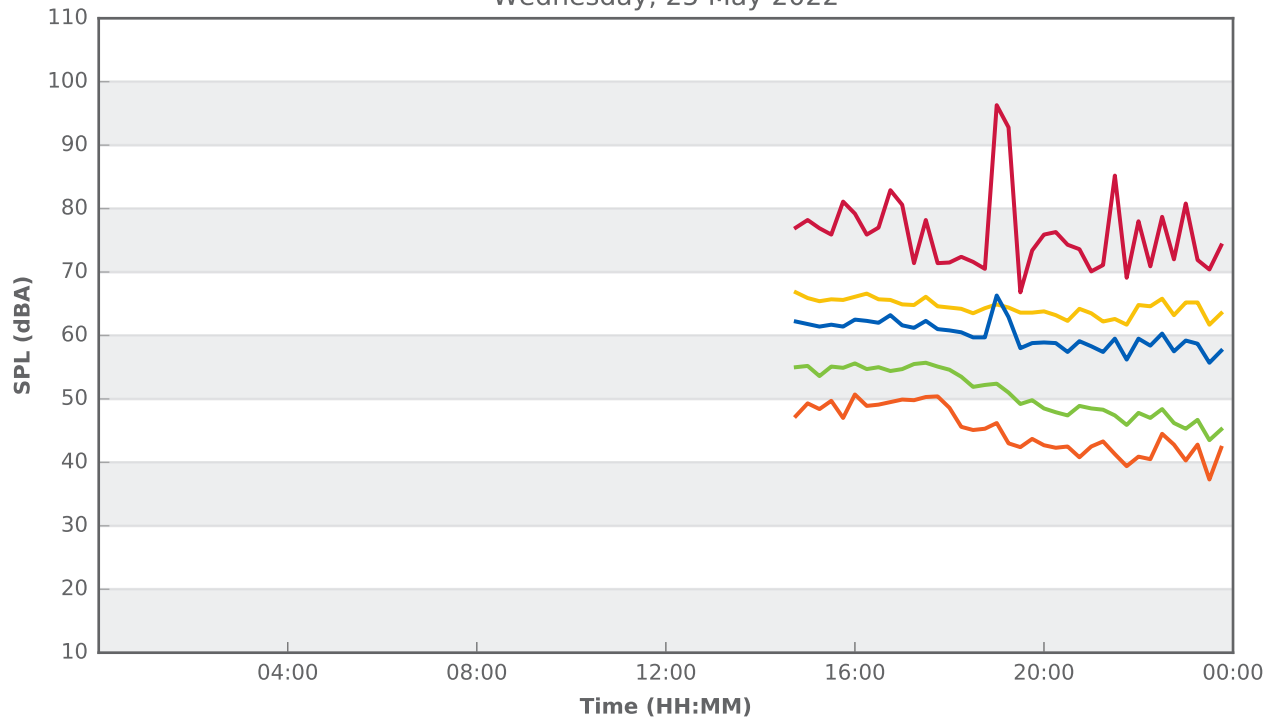




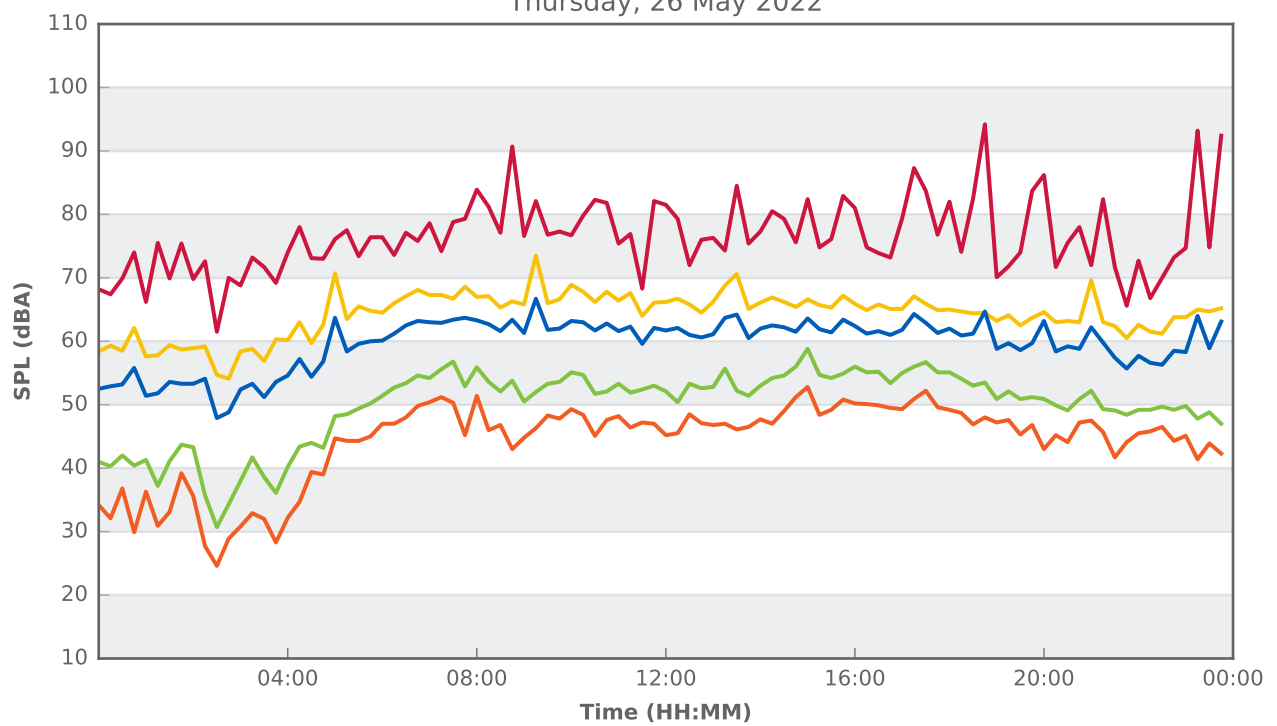
# NCA-3-T4 - 52 Russell Avenue, Wahroonga



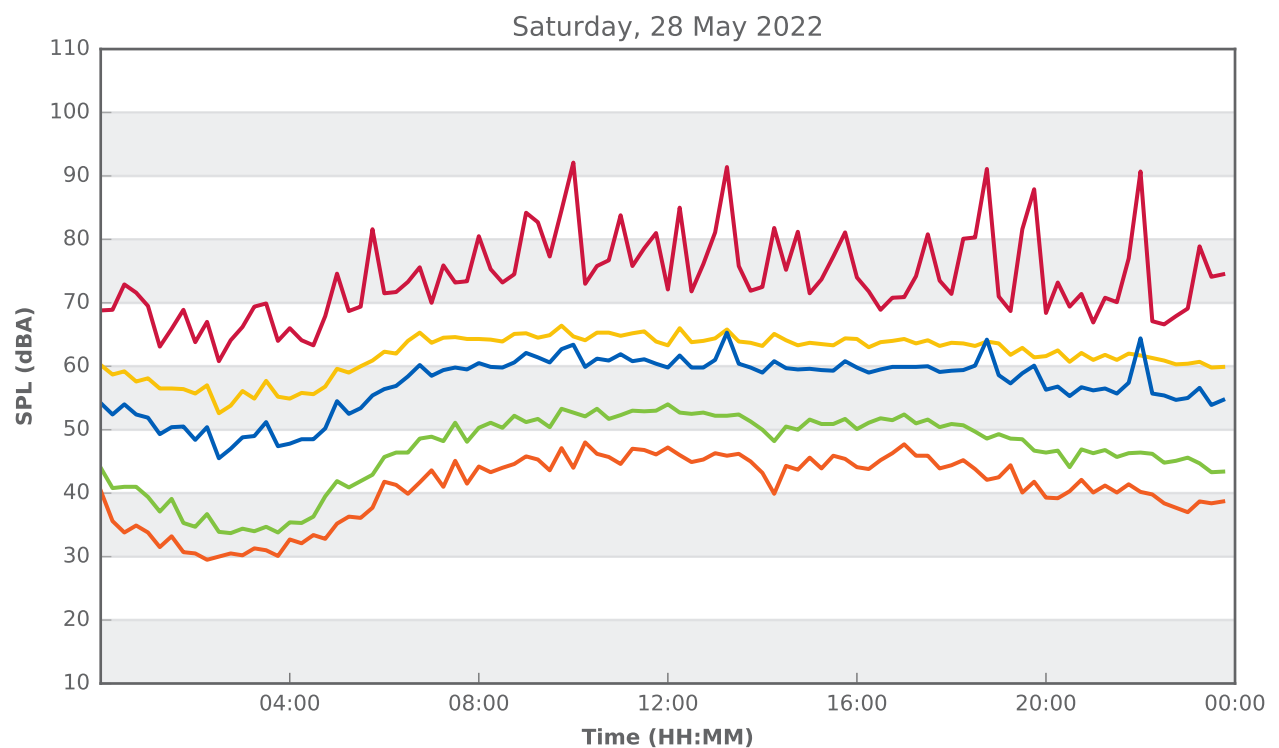
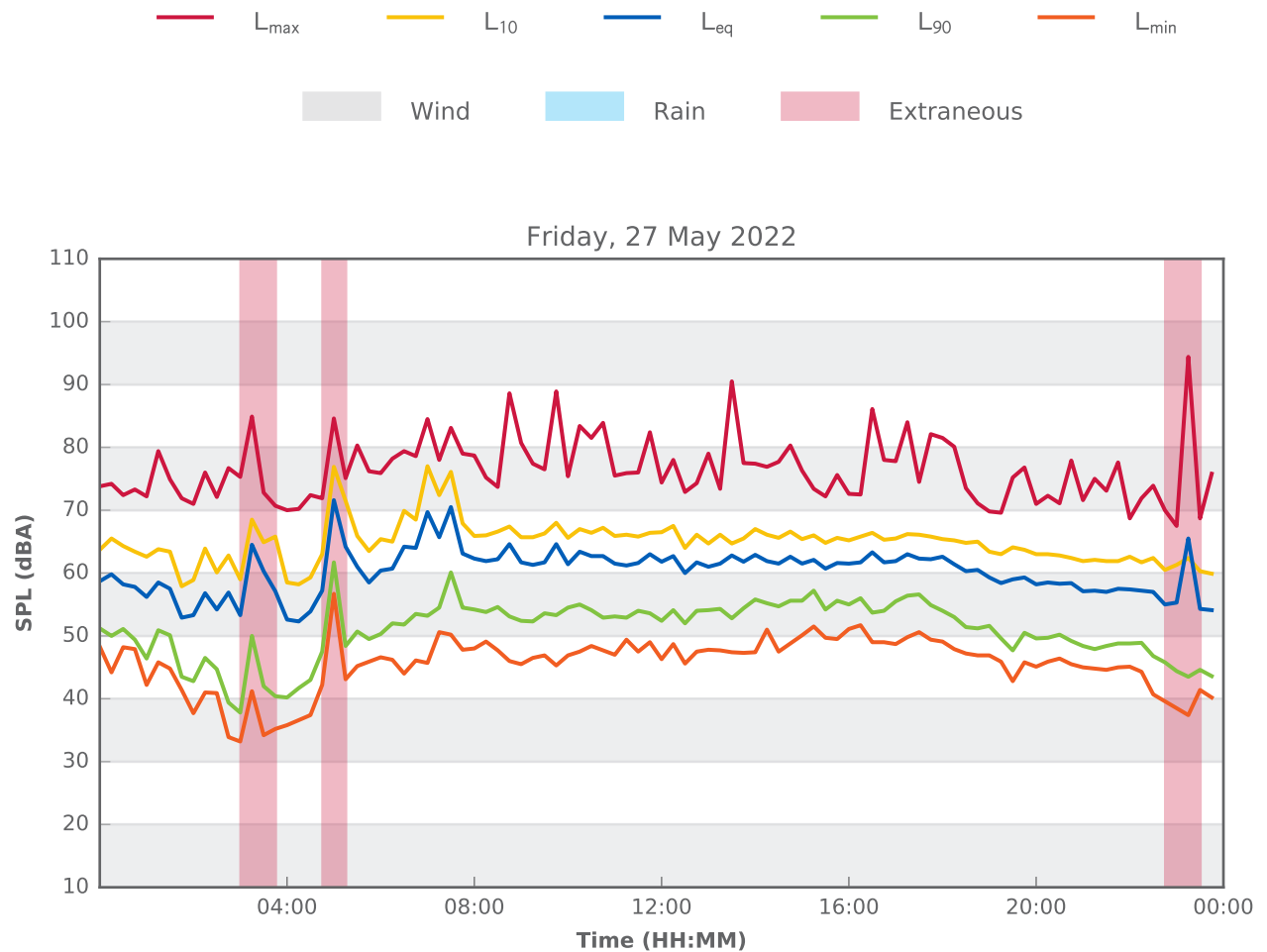
Wednesday, 25 May 2022



Thursday, 26 May 2022

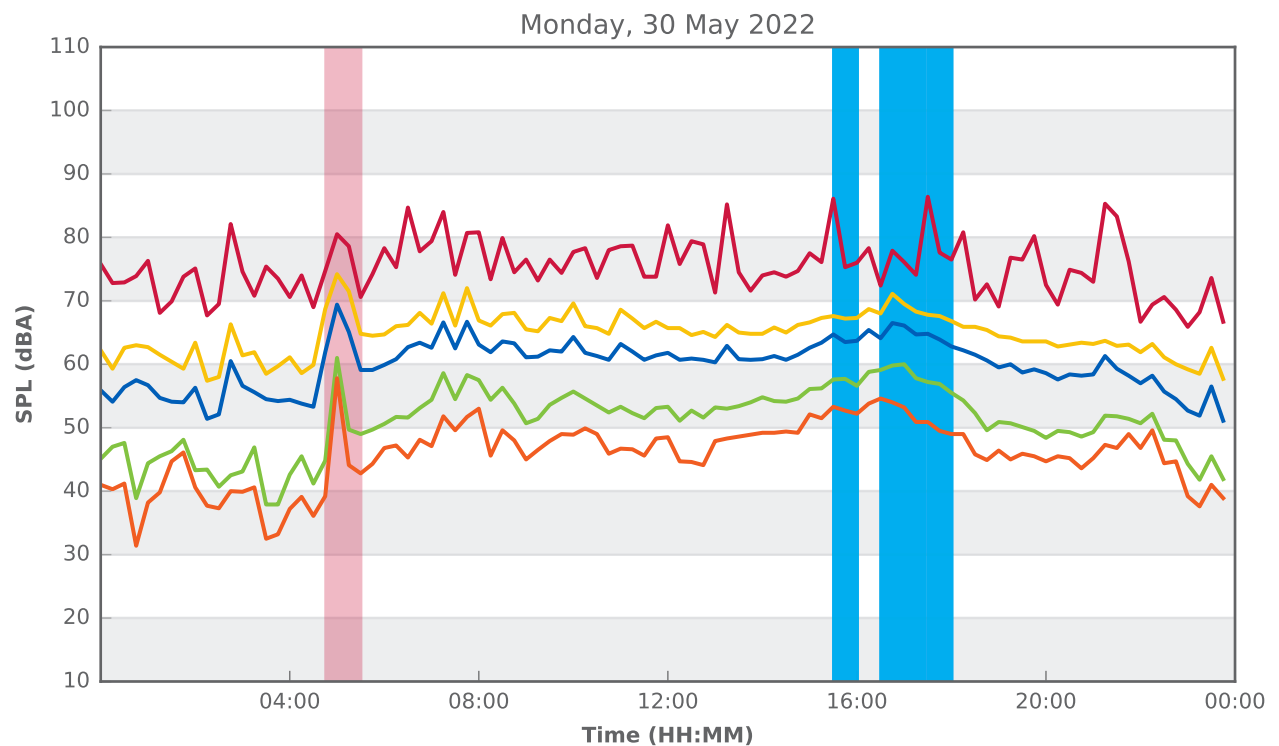
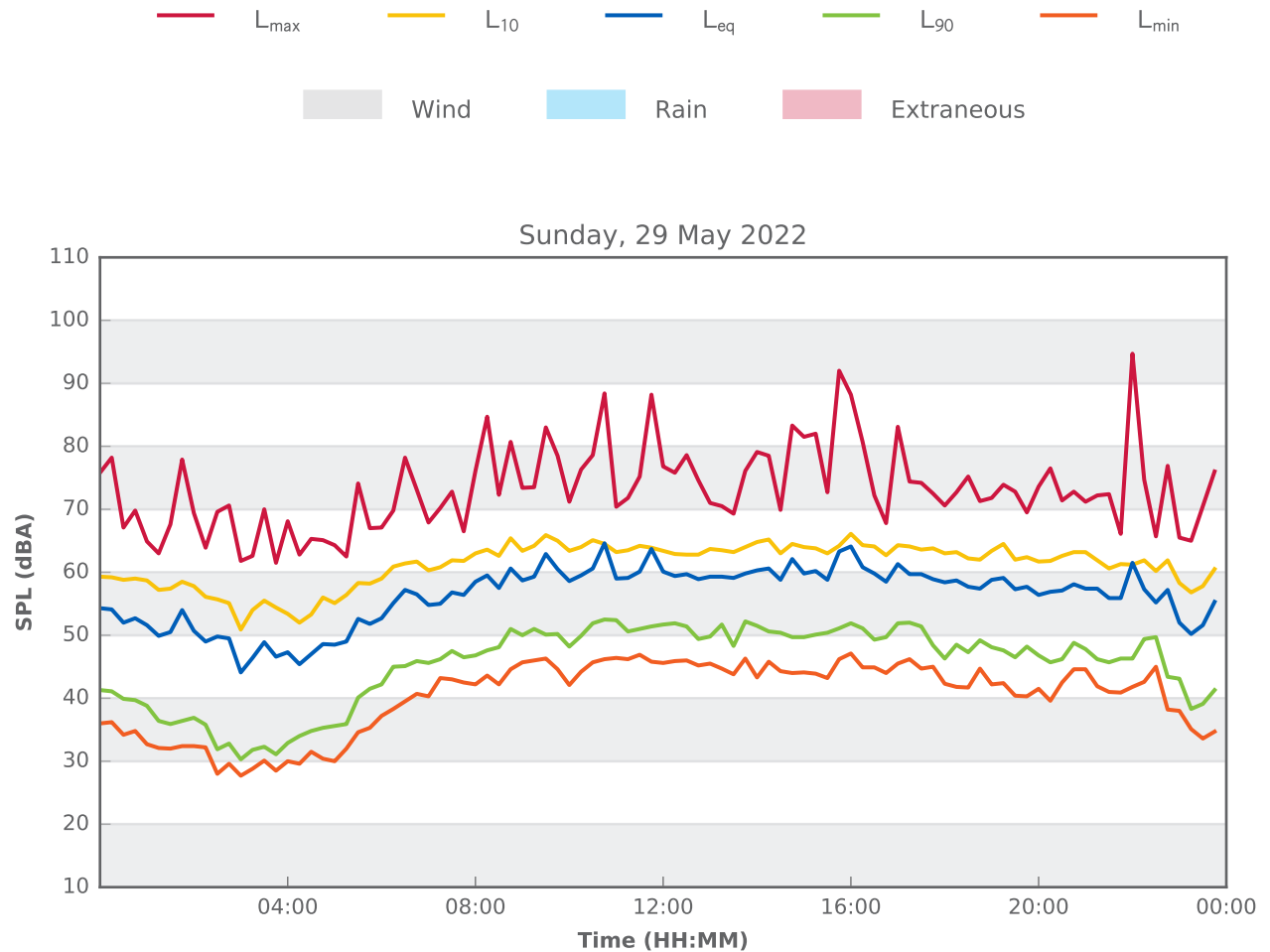


# NCA-3-T4 - 52 Russell Avenue, Wahroonga

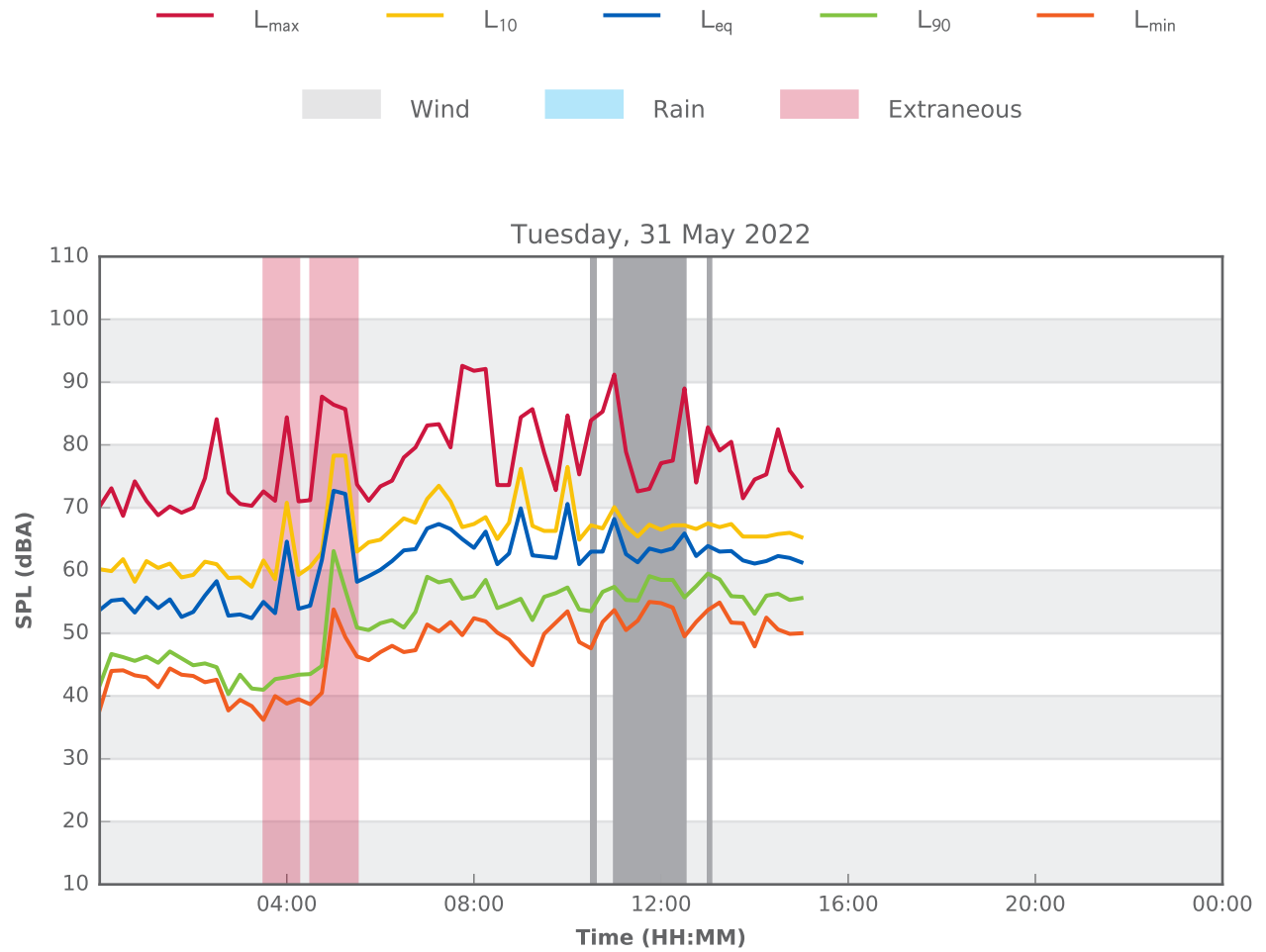




# NCA-3-T4 - 52 Russell Avenue, Wahroonga

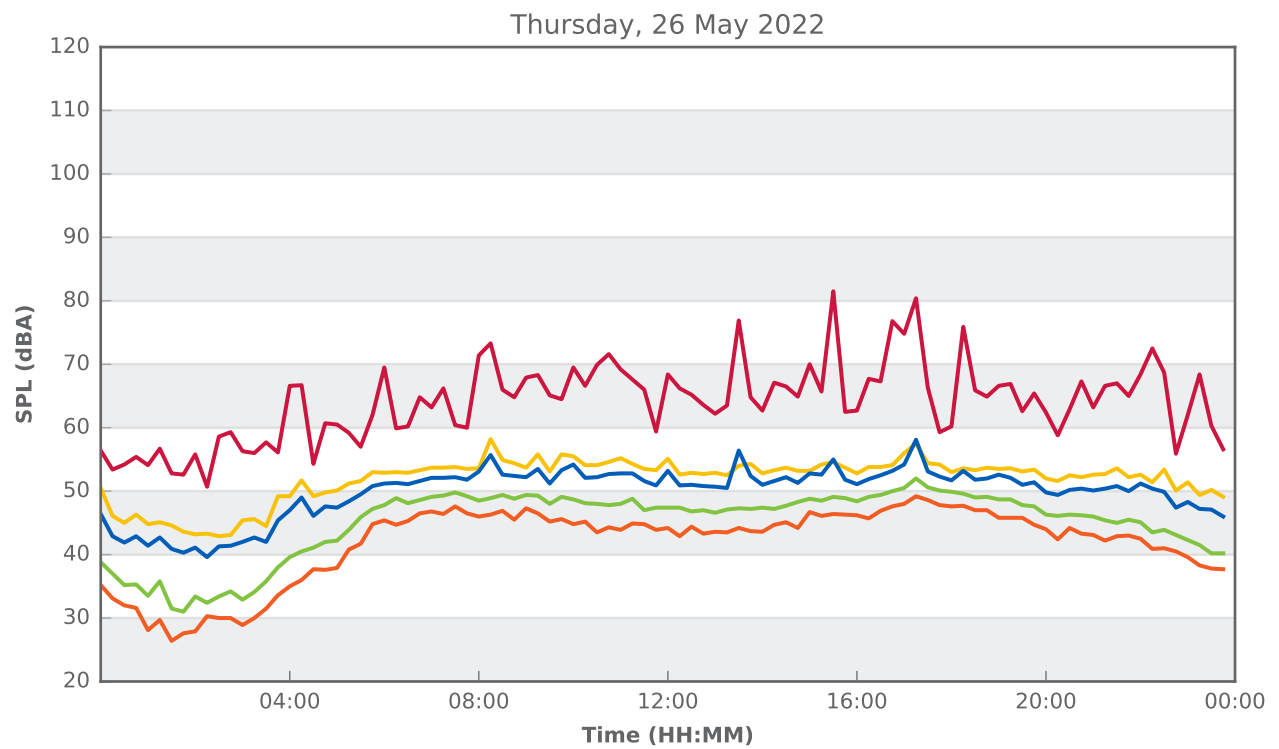
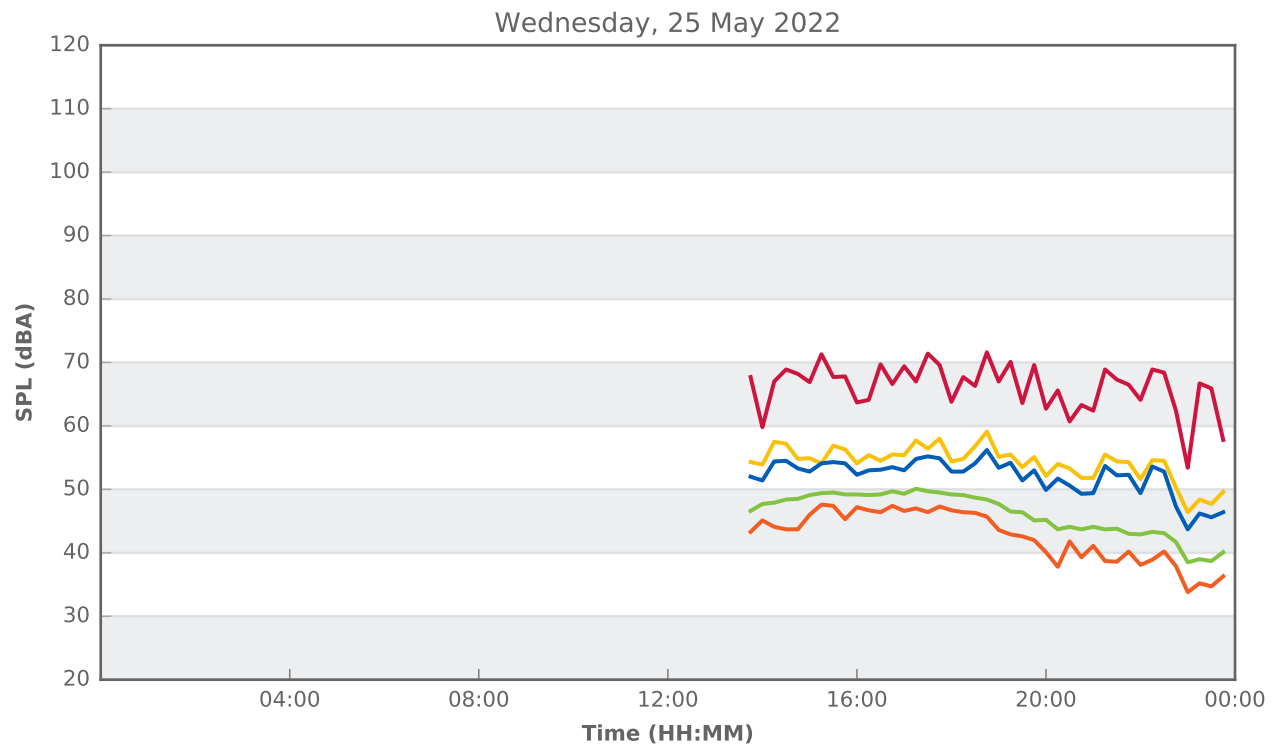


# NCA-3-T4 - 52 Russell Avenue, Wahroonga

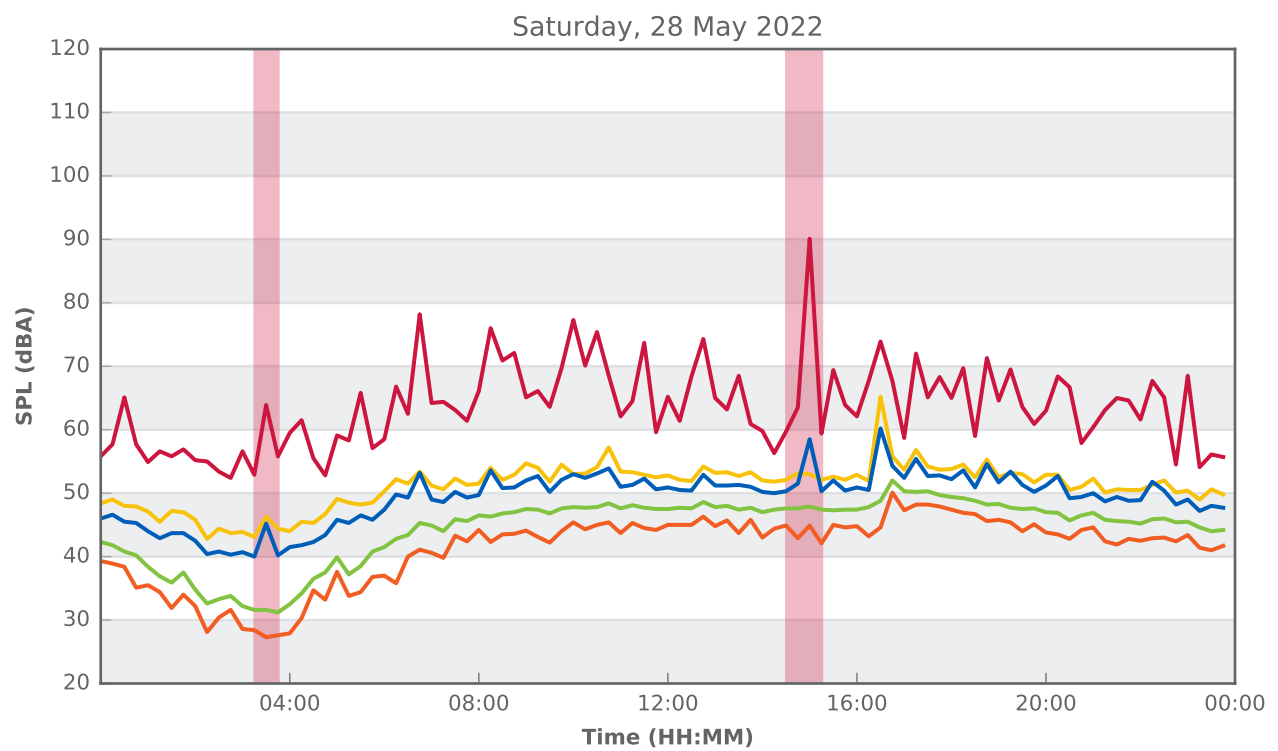
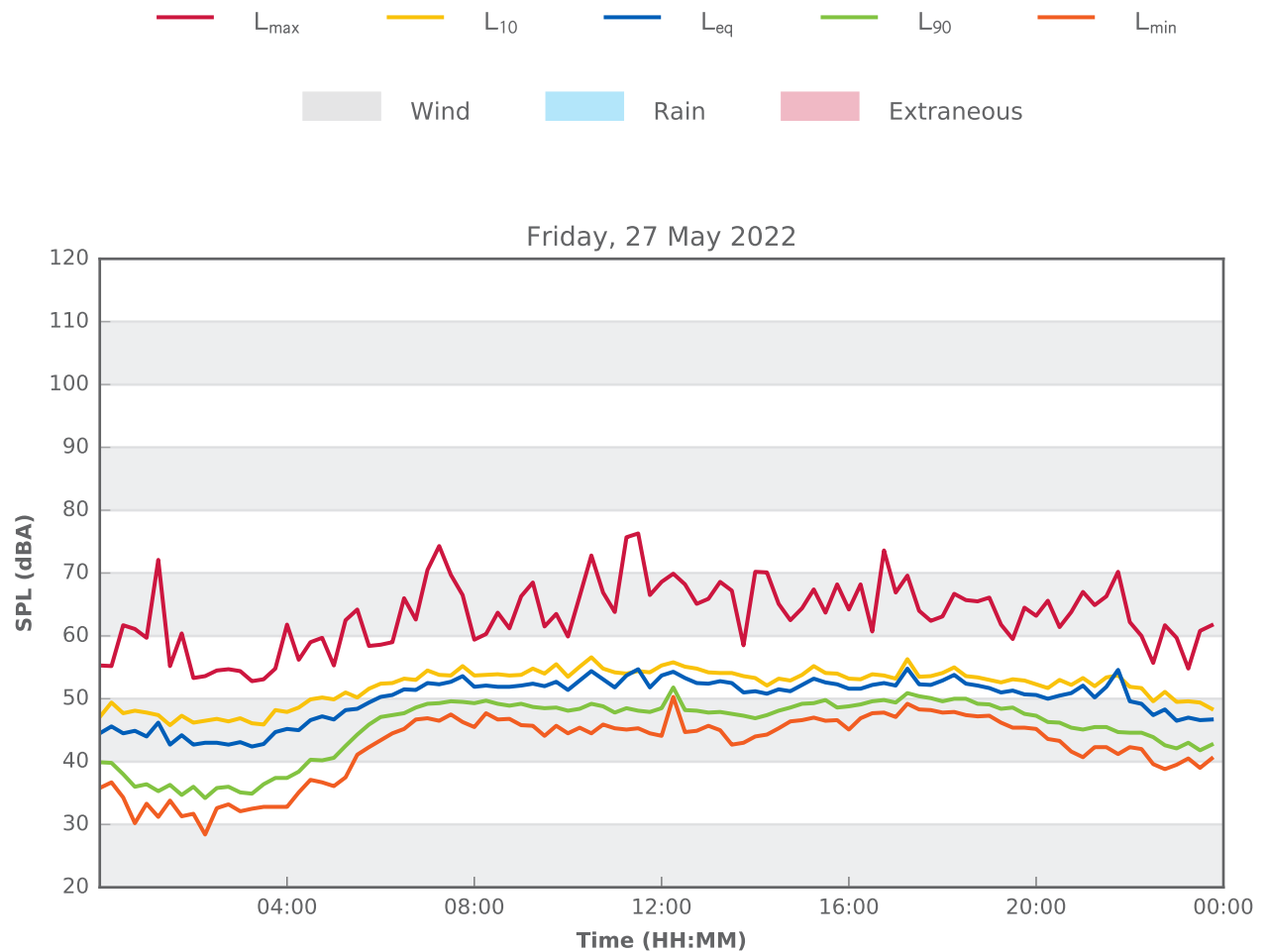




# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

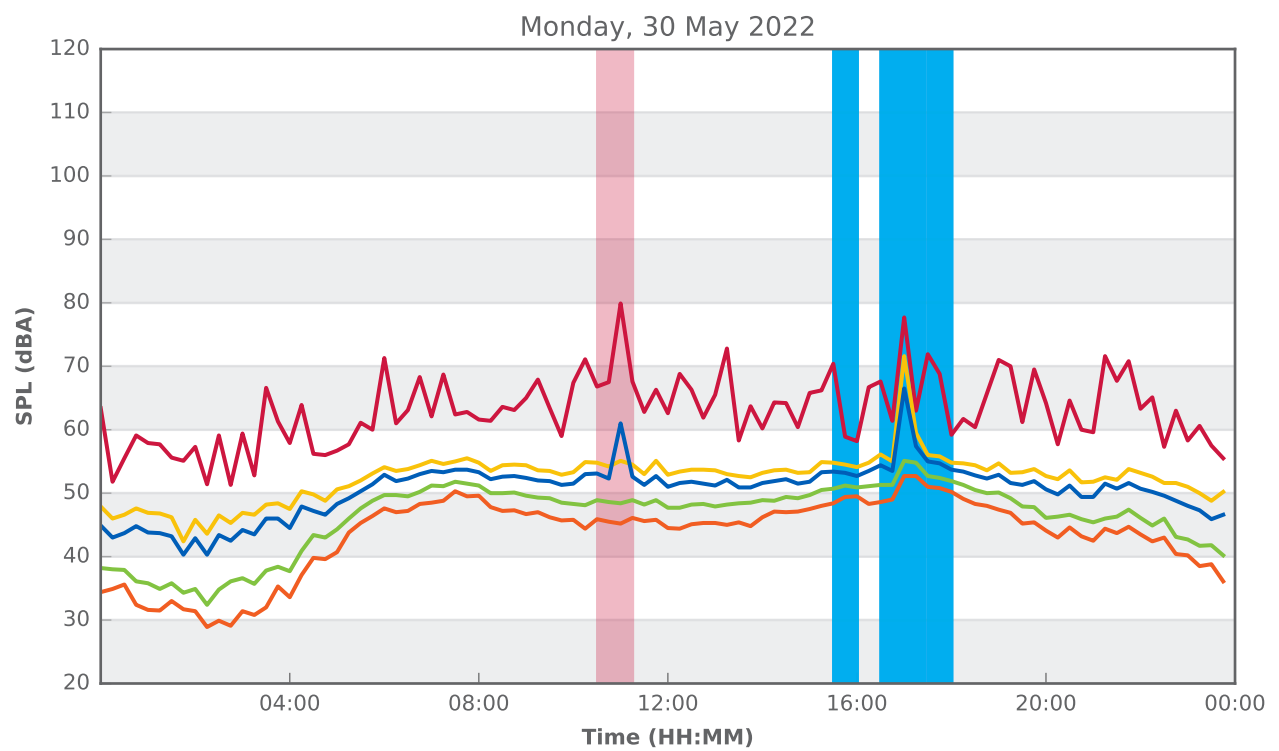
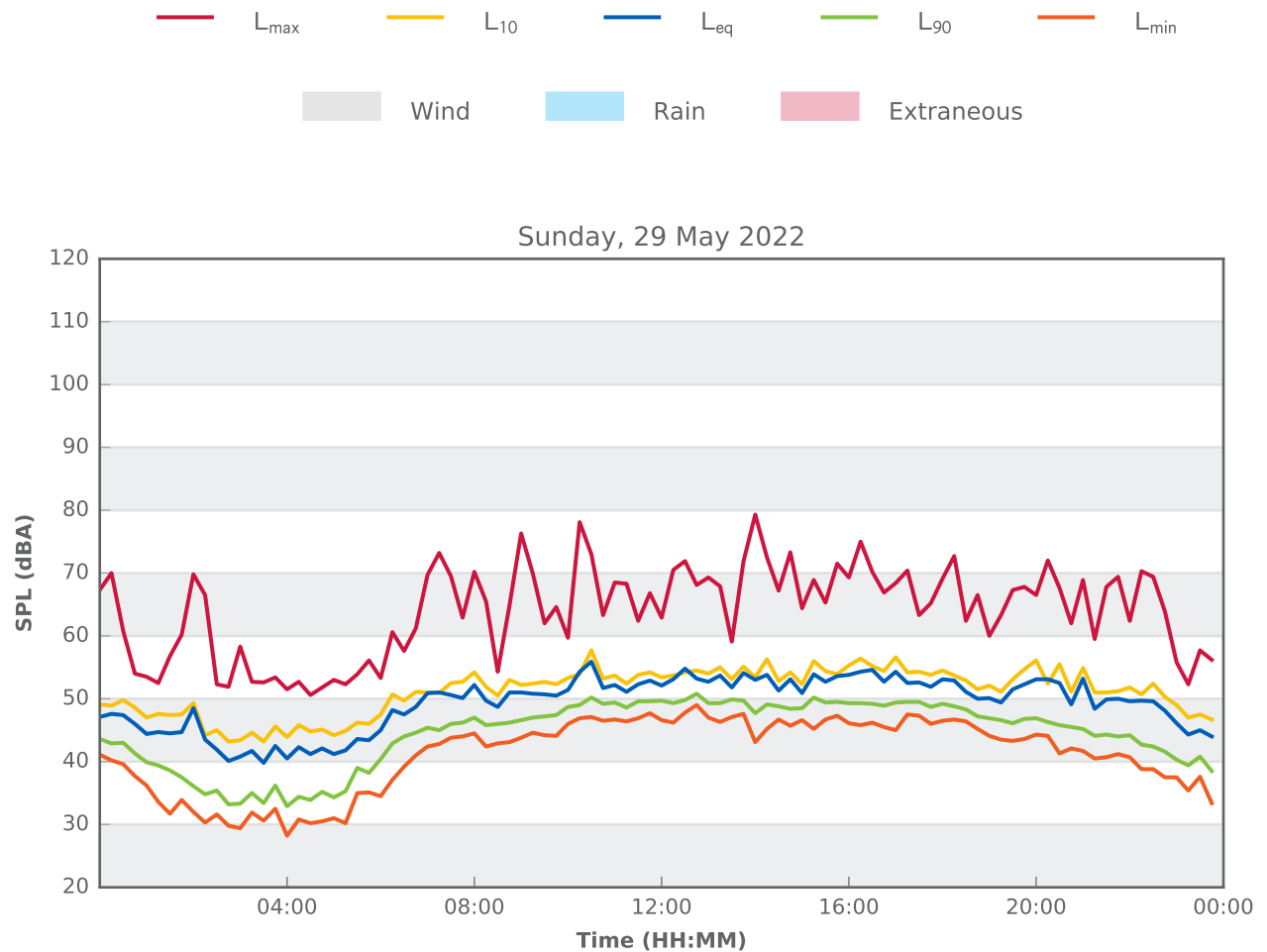


# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

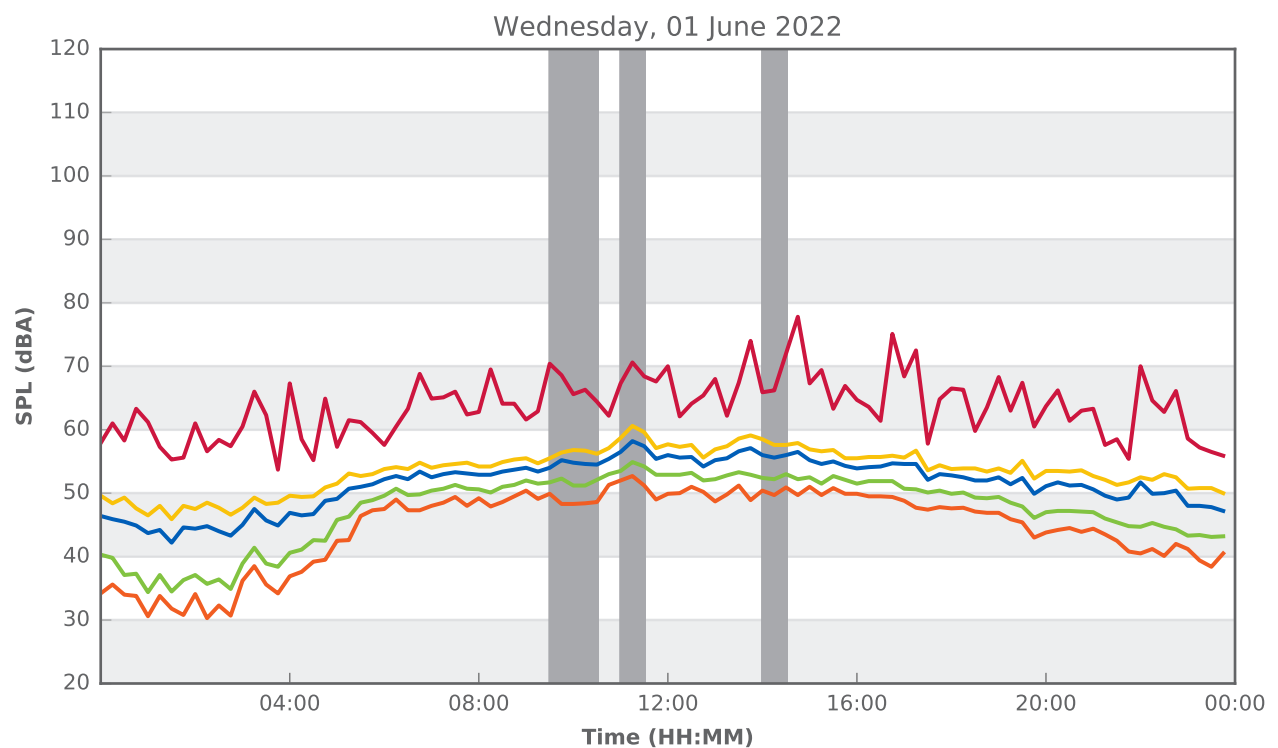
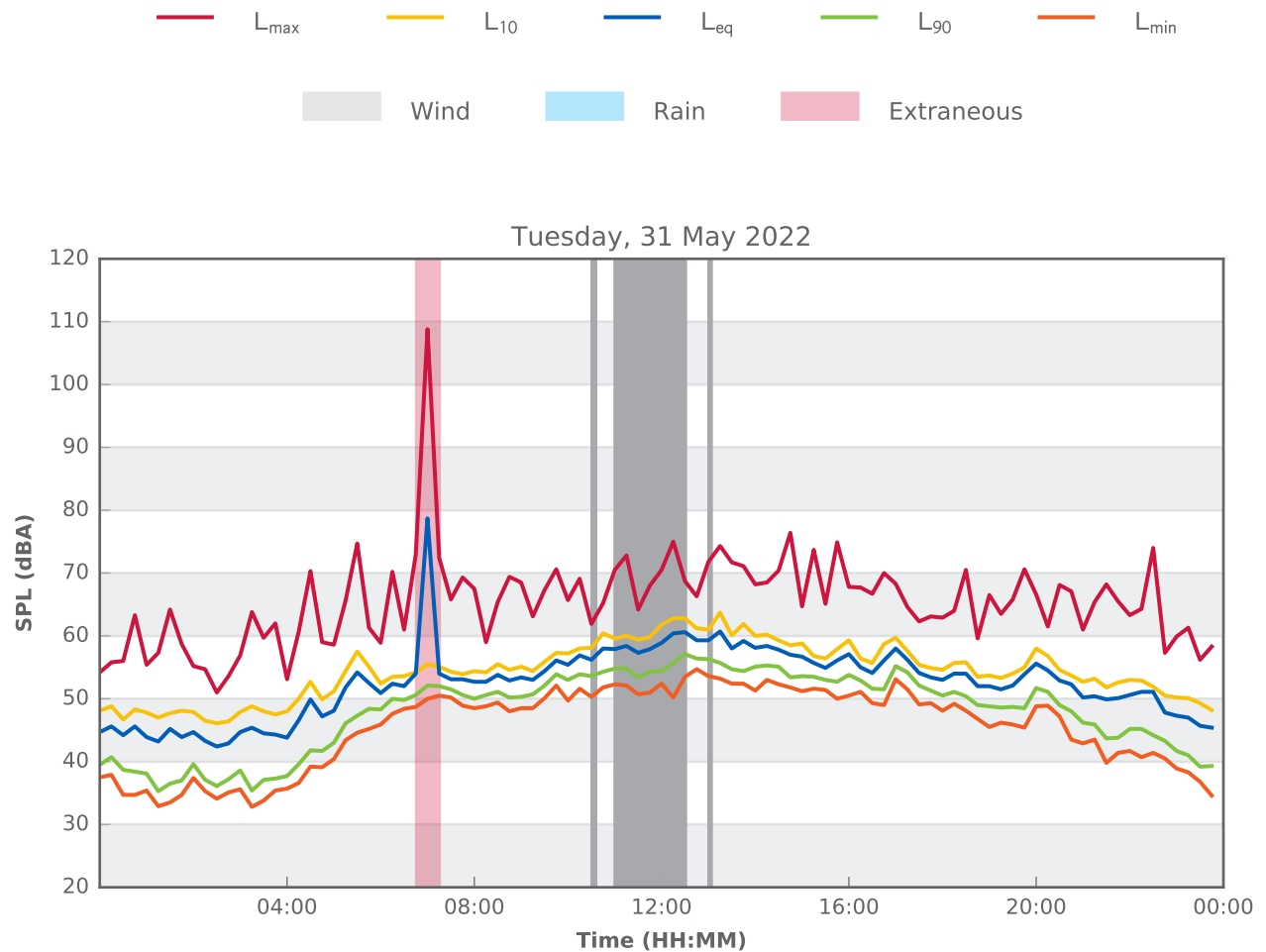




# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

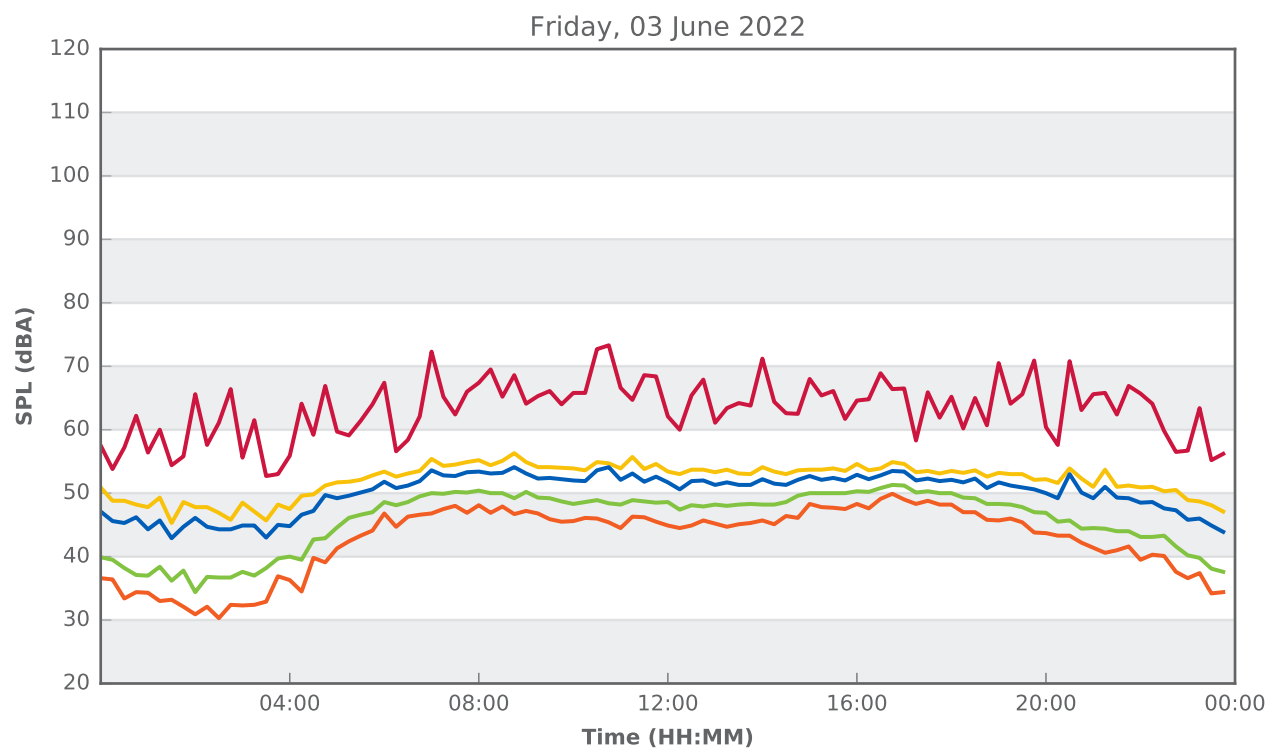
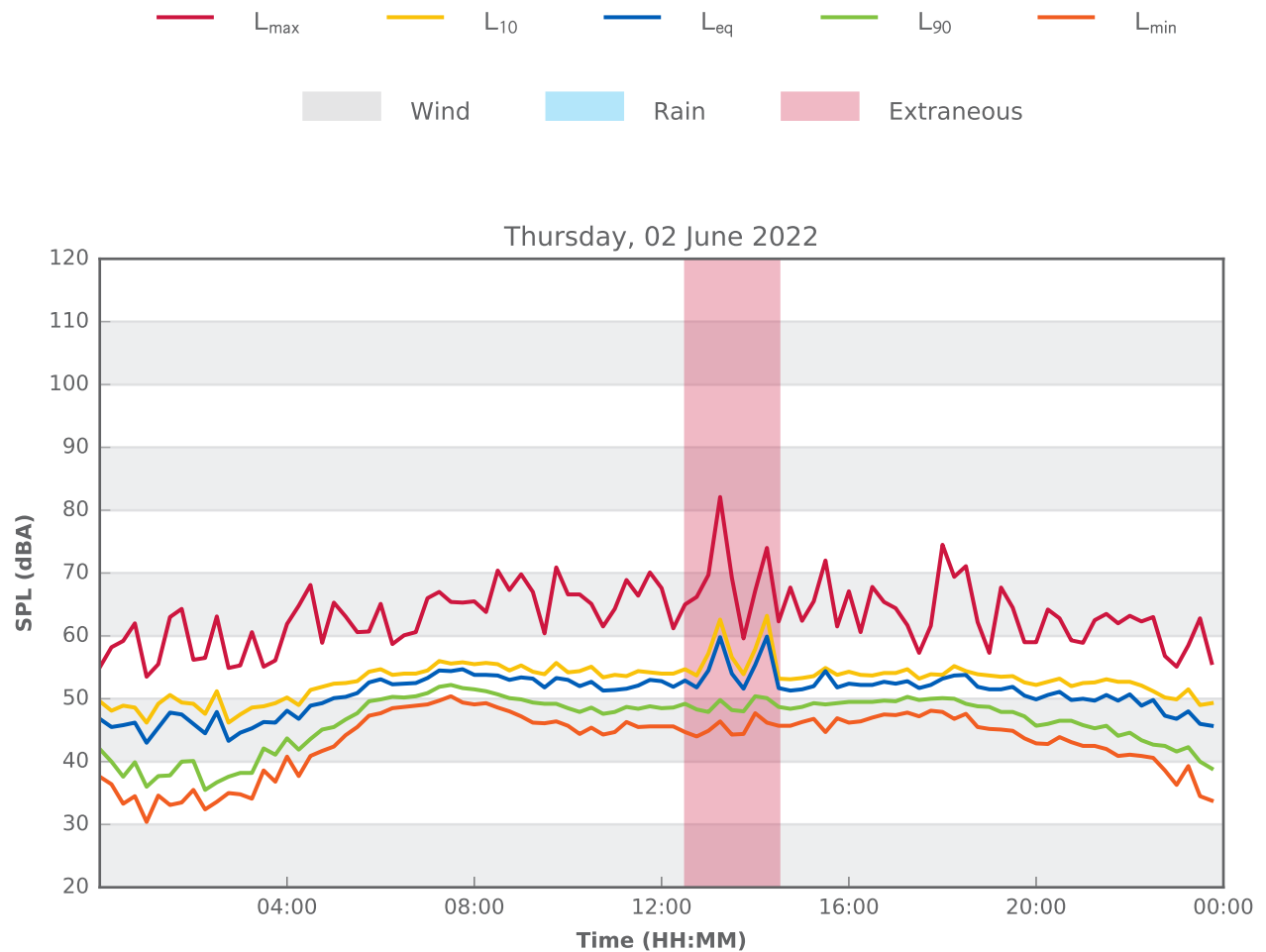


# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

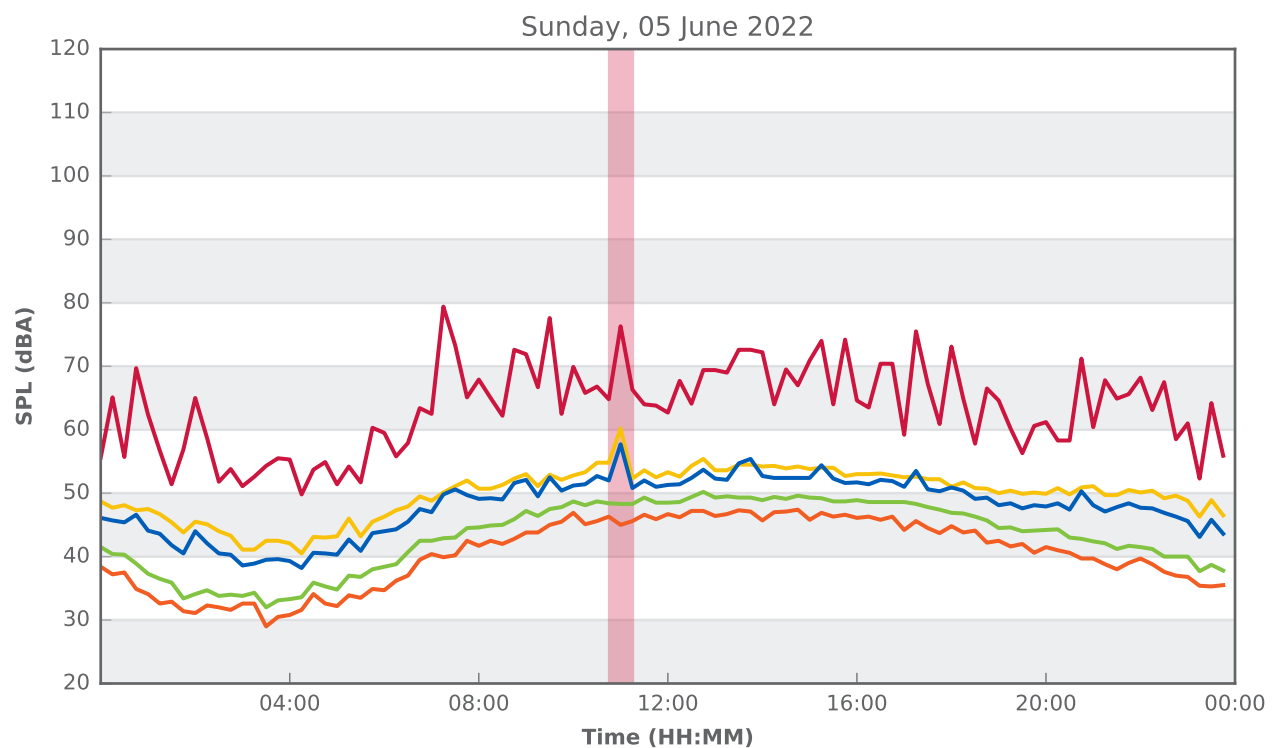
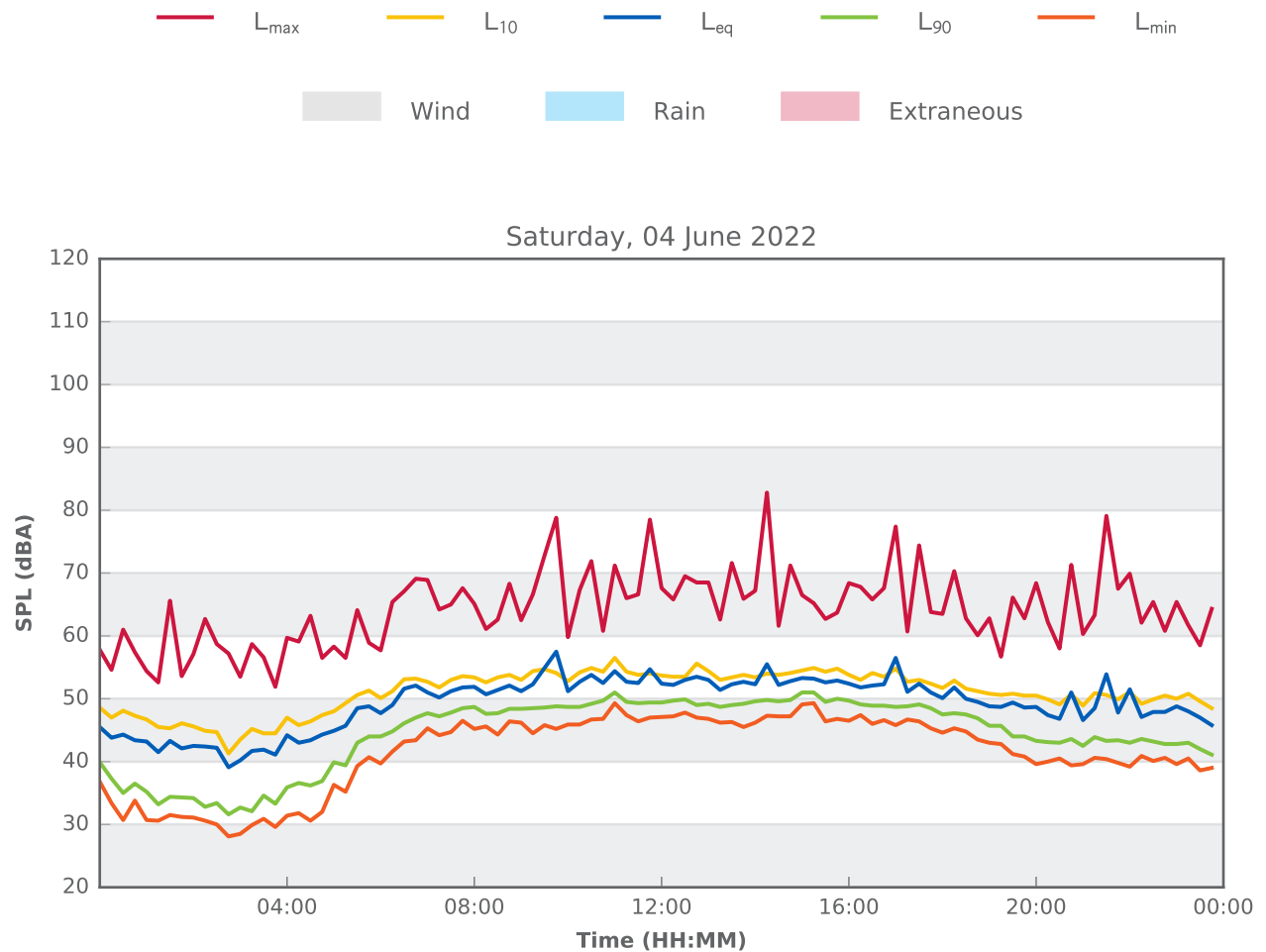




## NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

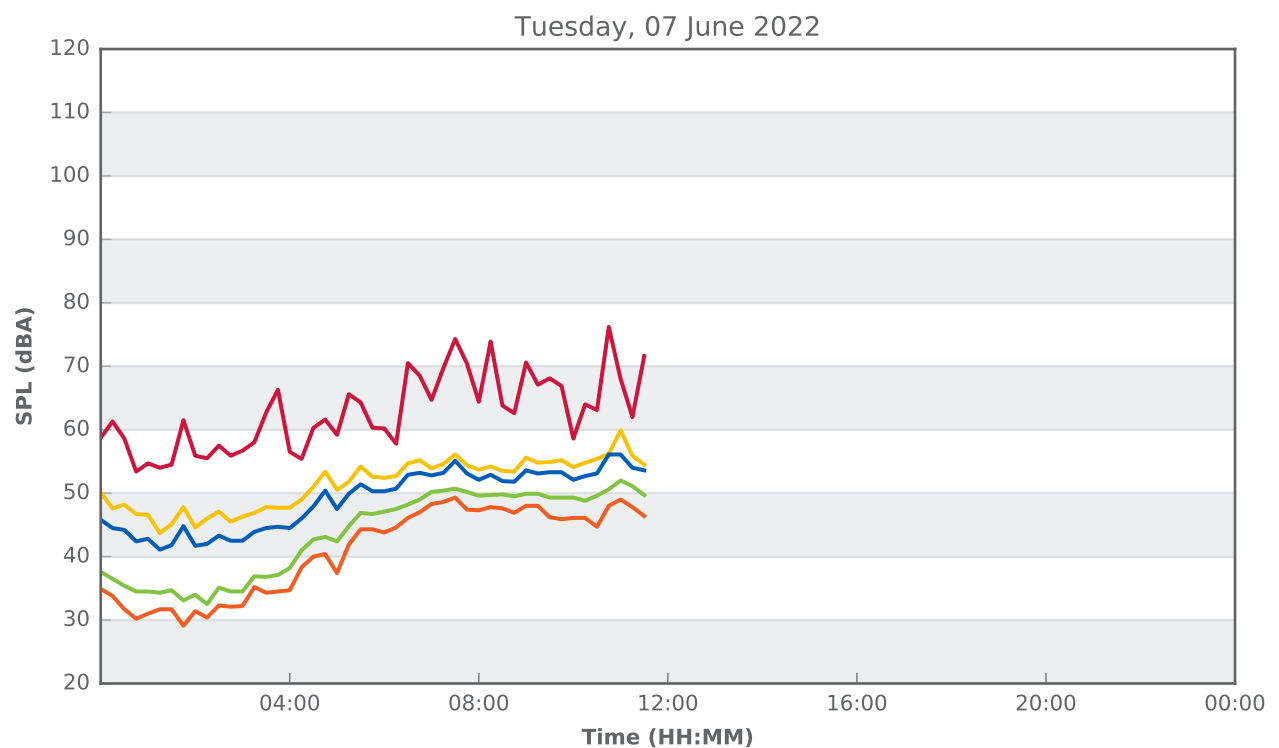
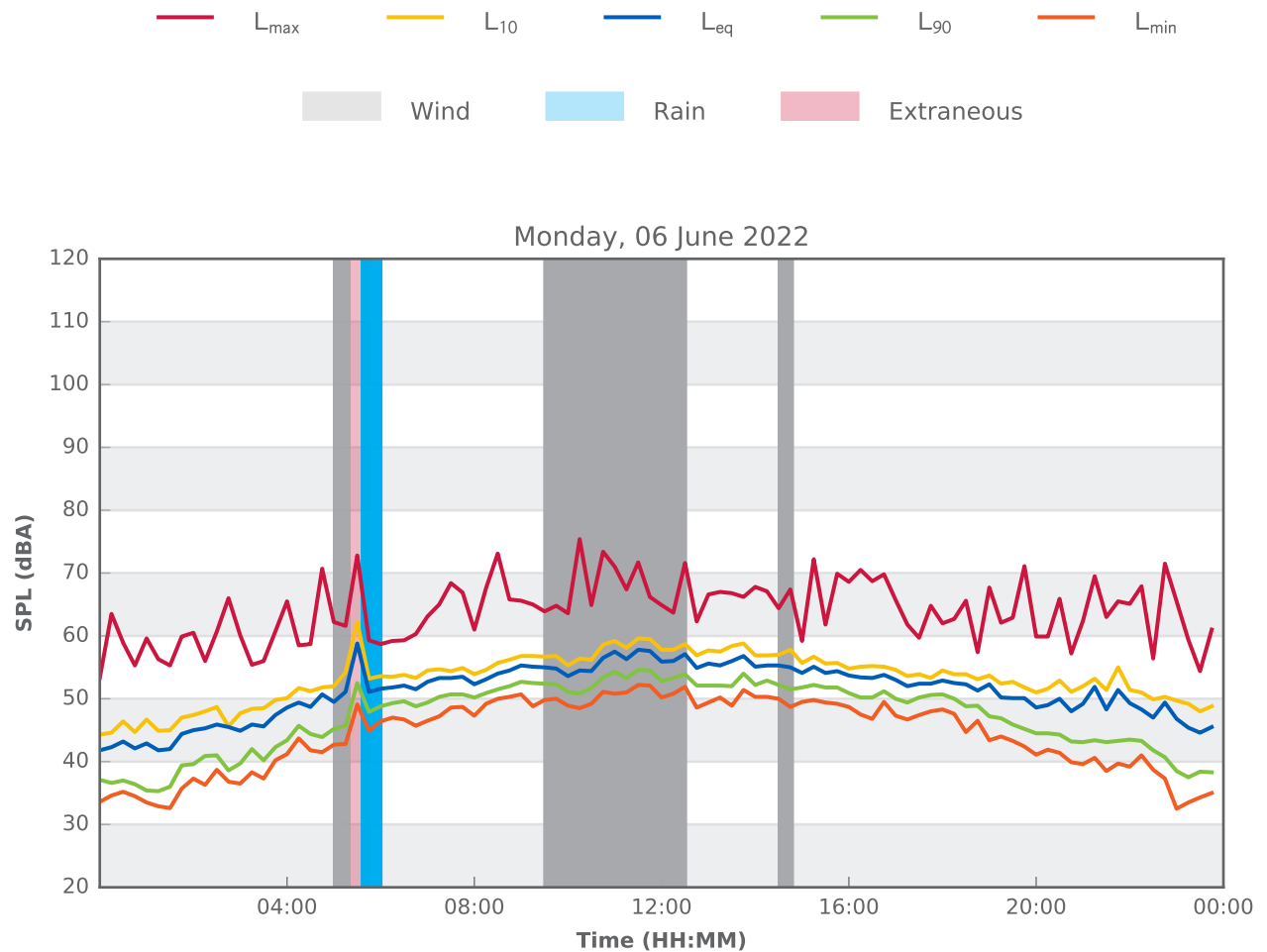


# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

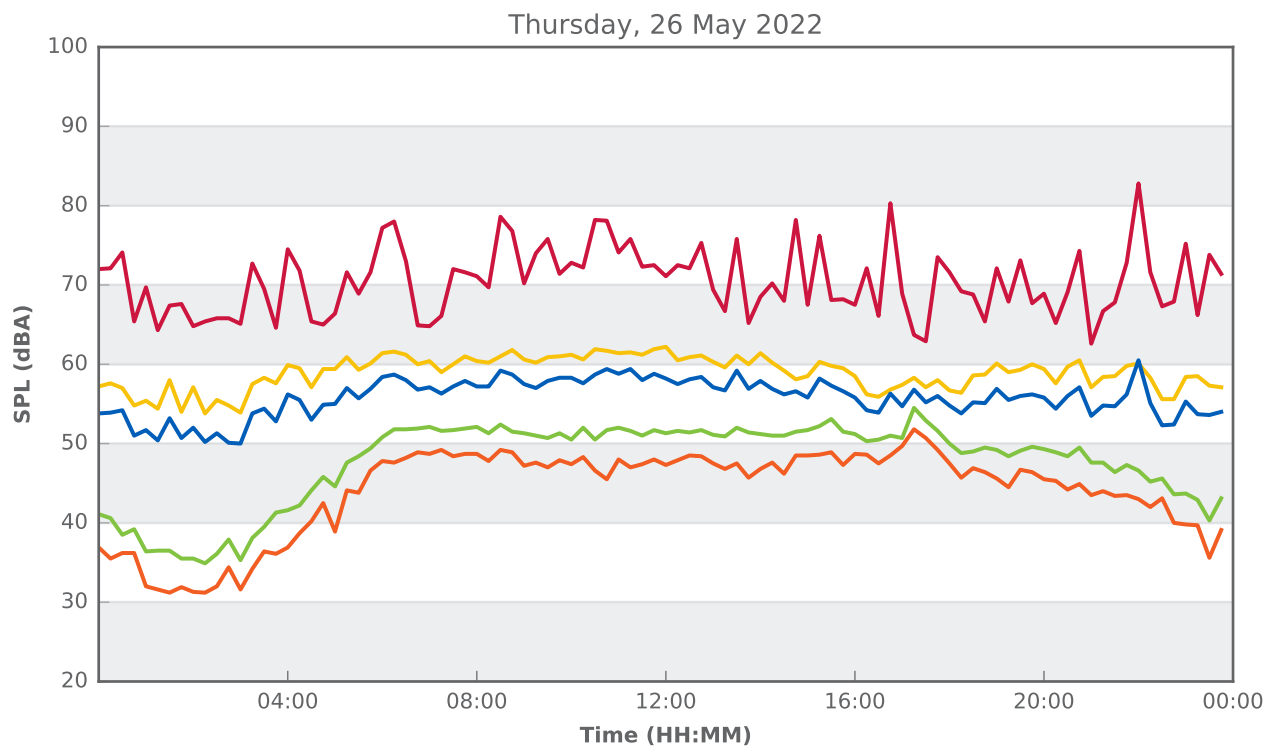
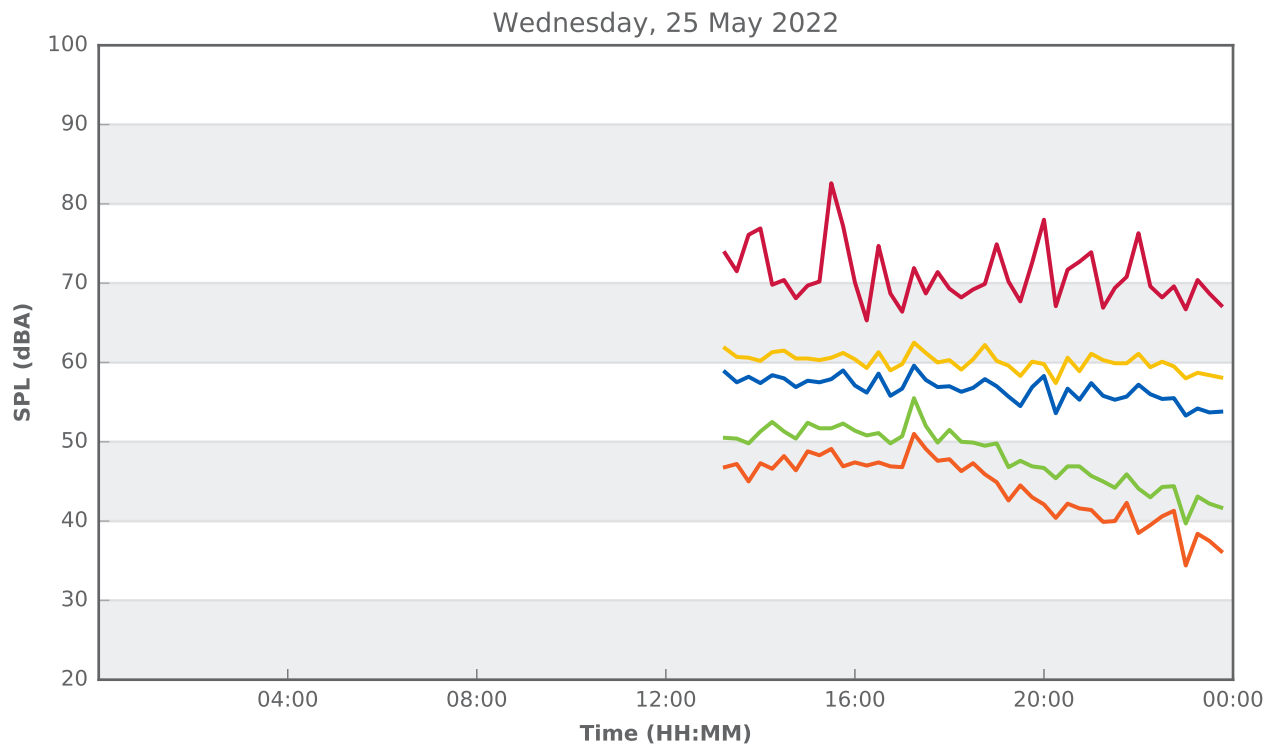




# NCA-10B-B15 - 3 Mundon Place, West Pennant Hills

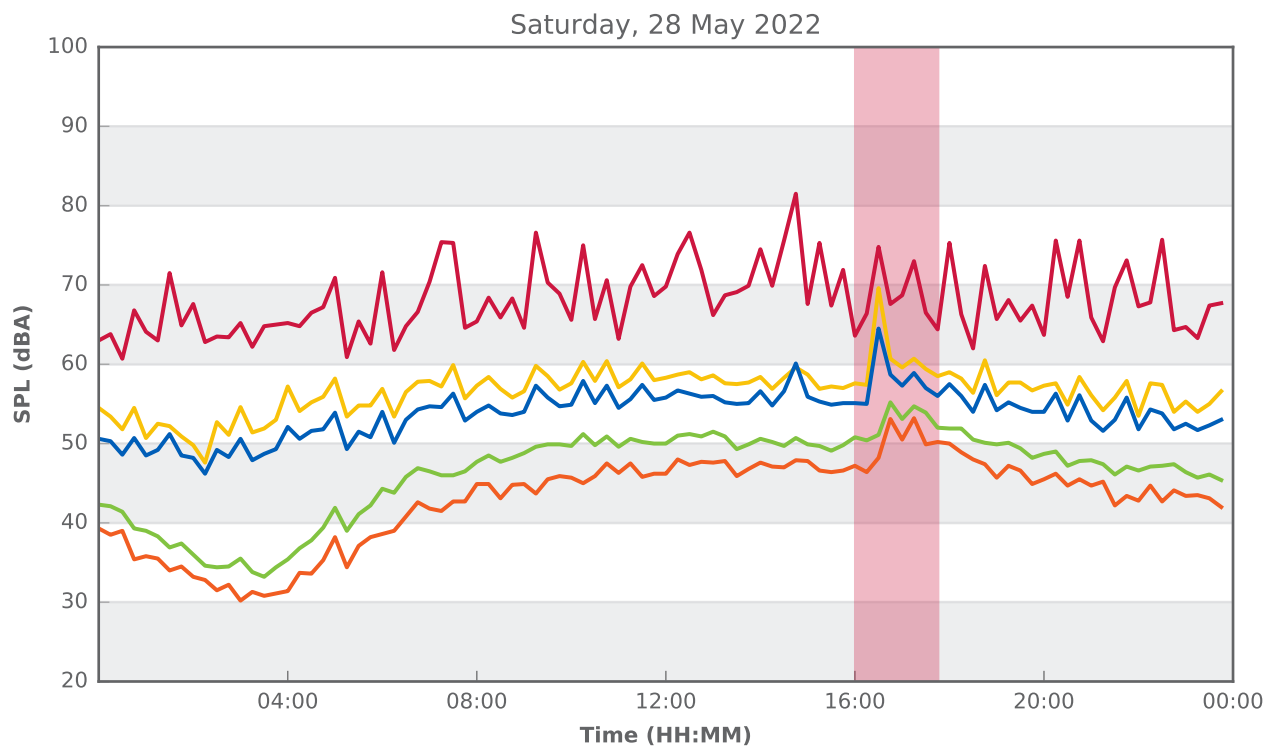
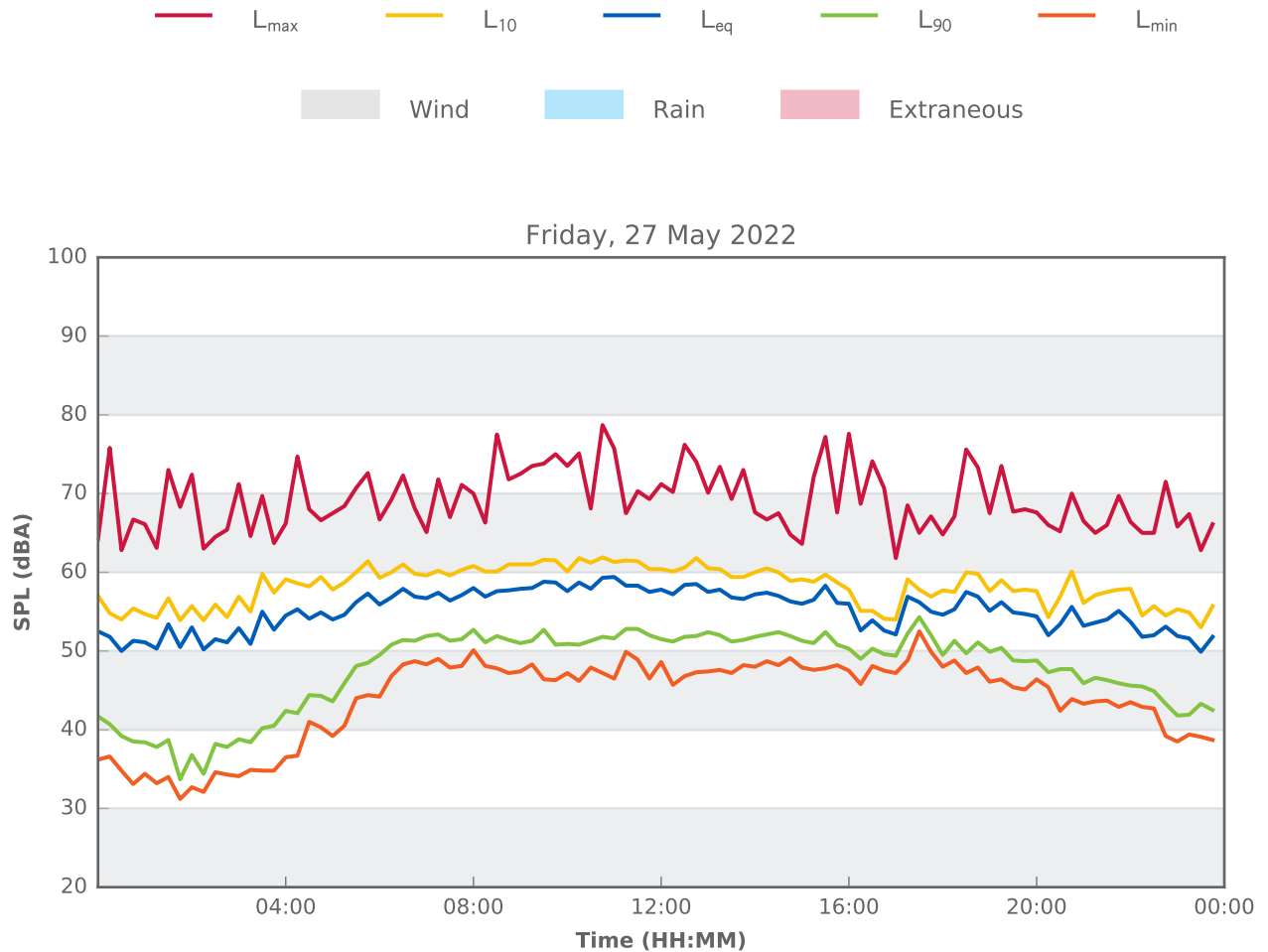


# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

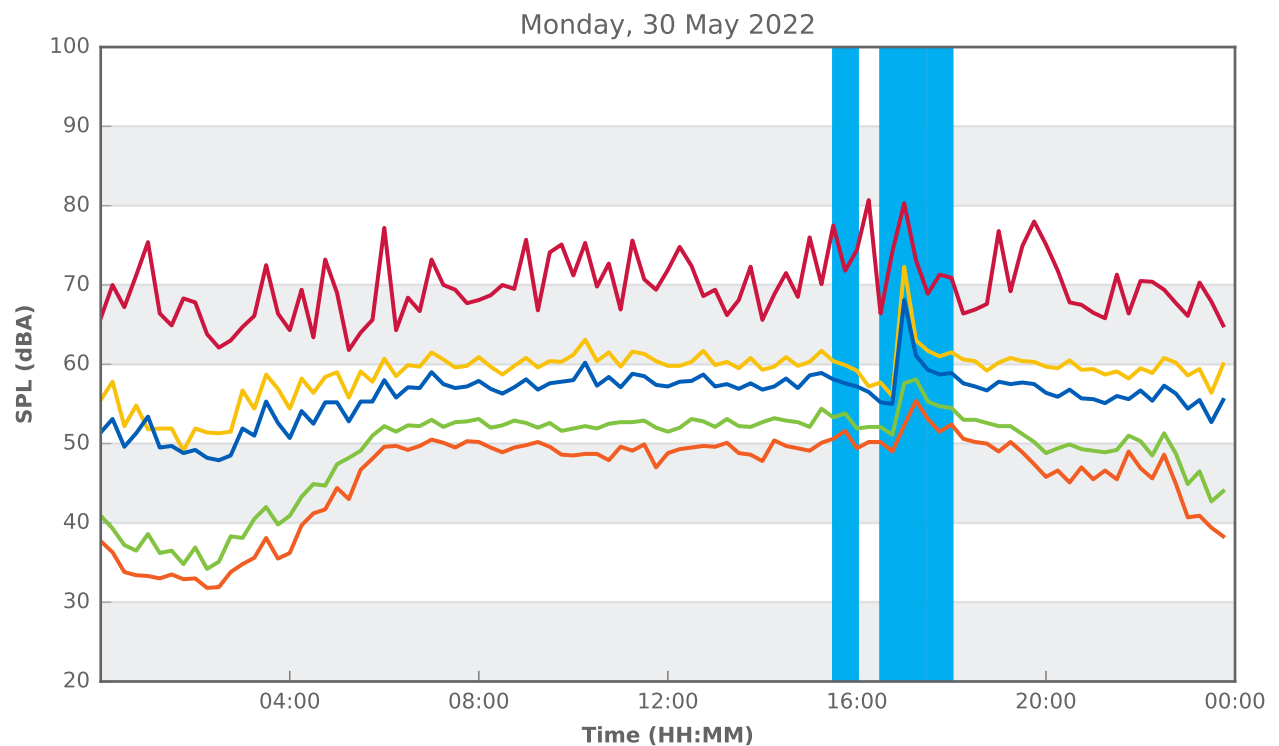
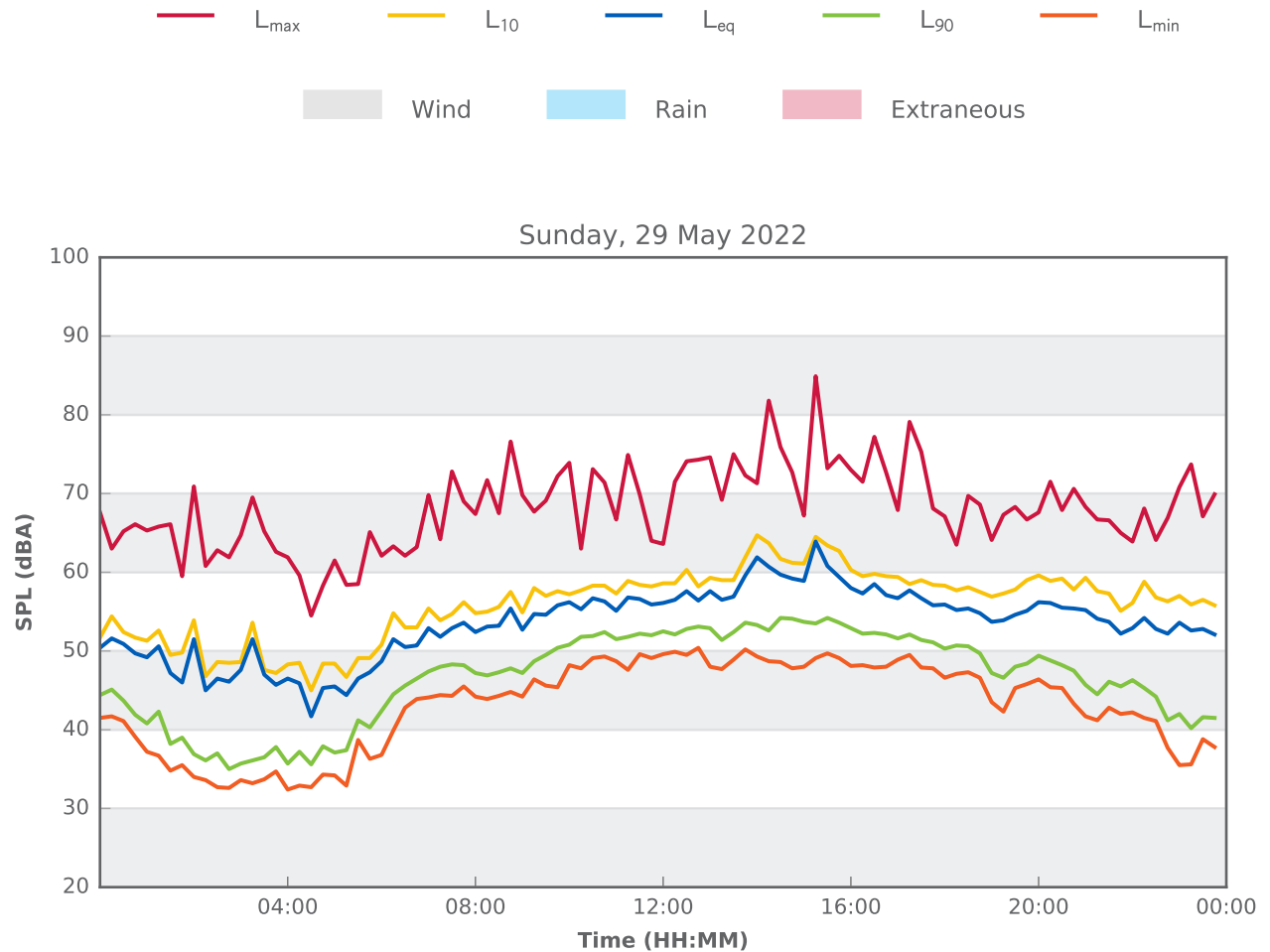




# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

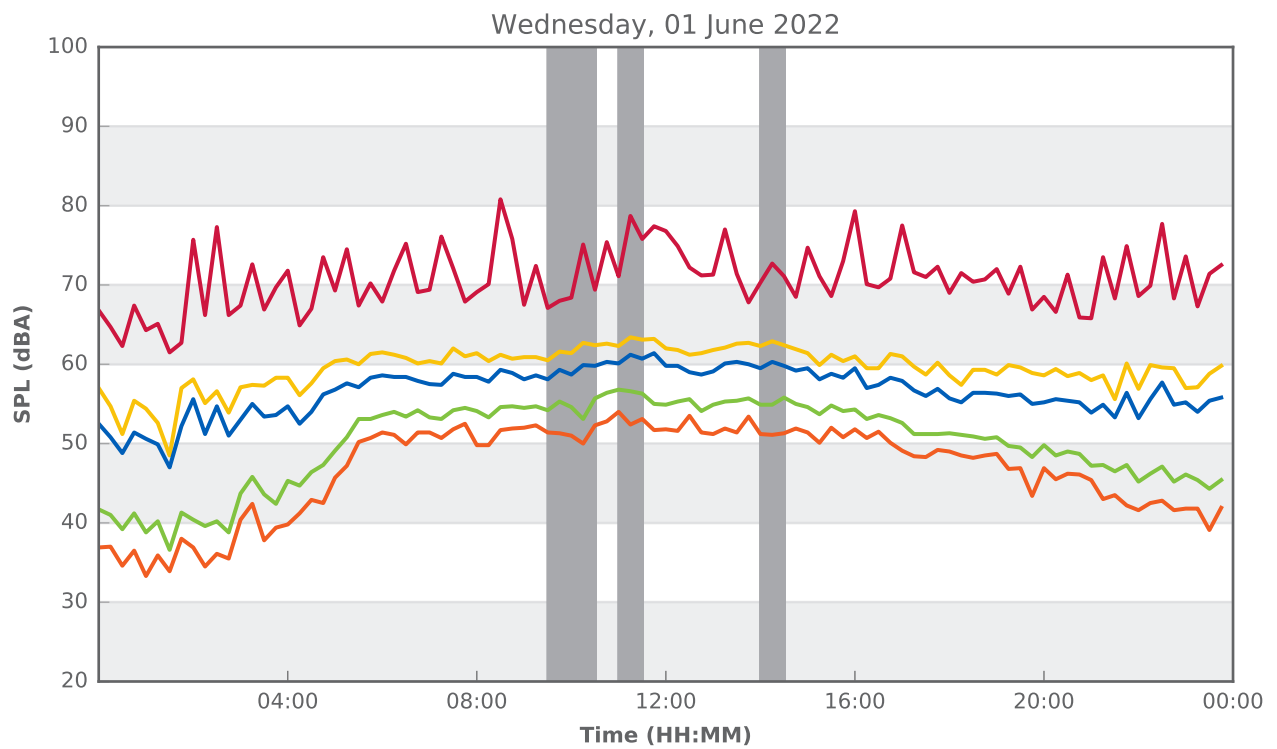
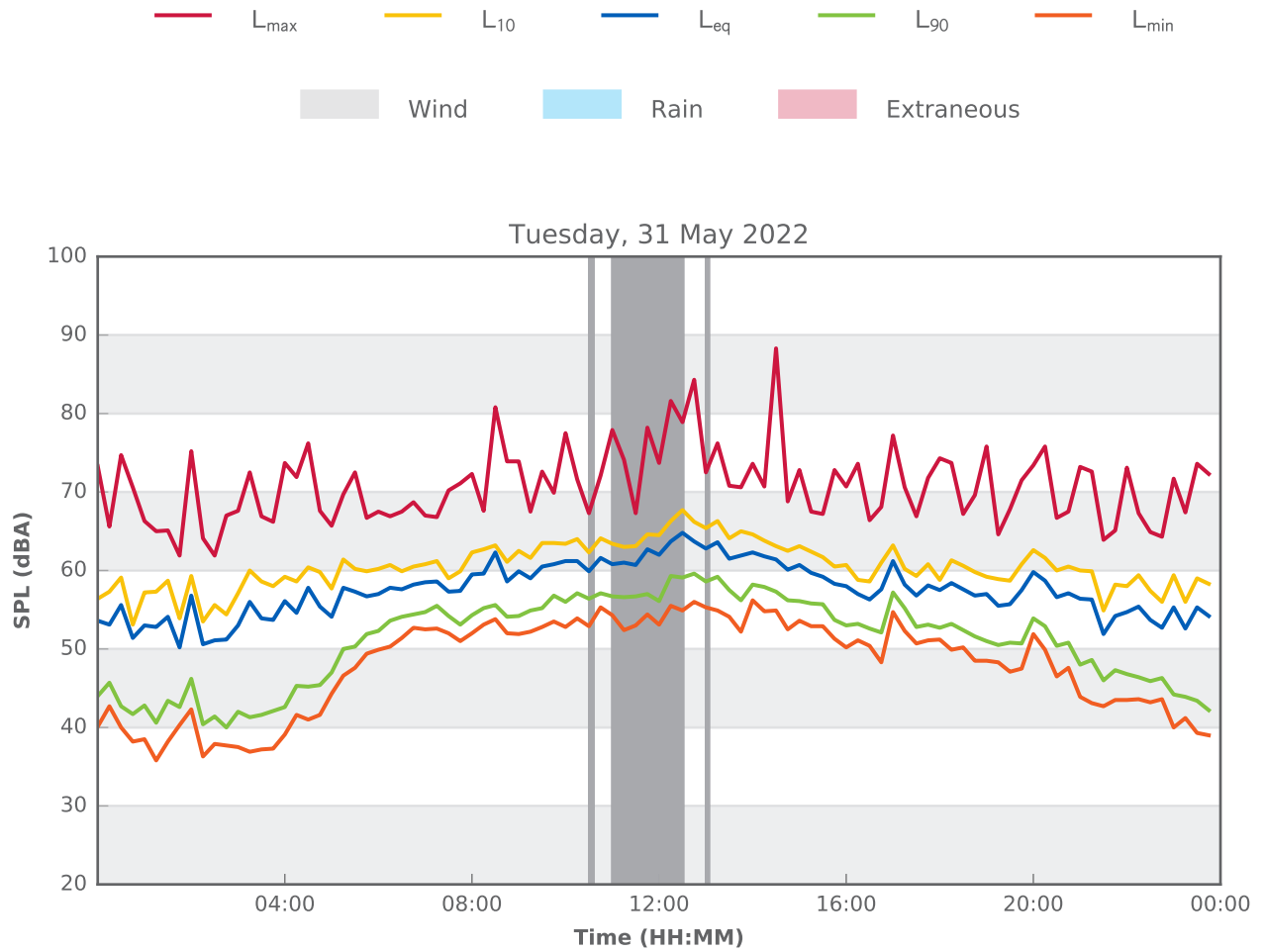


# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

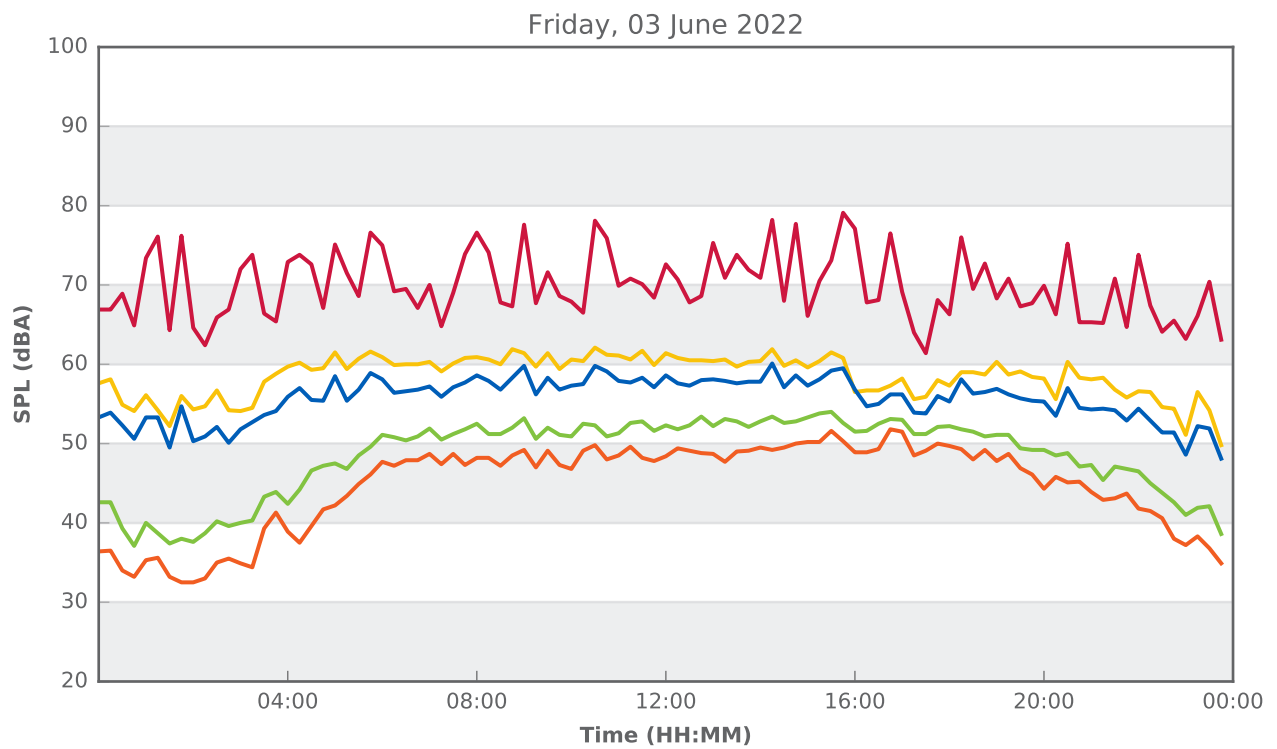
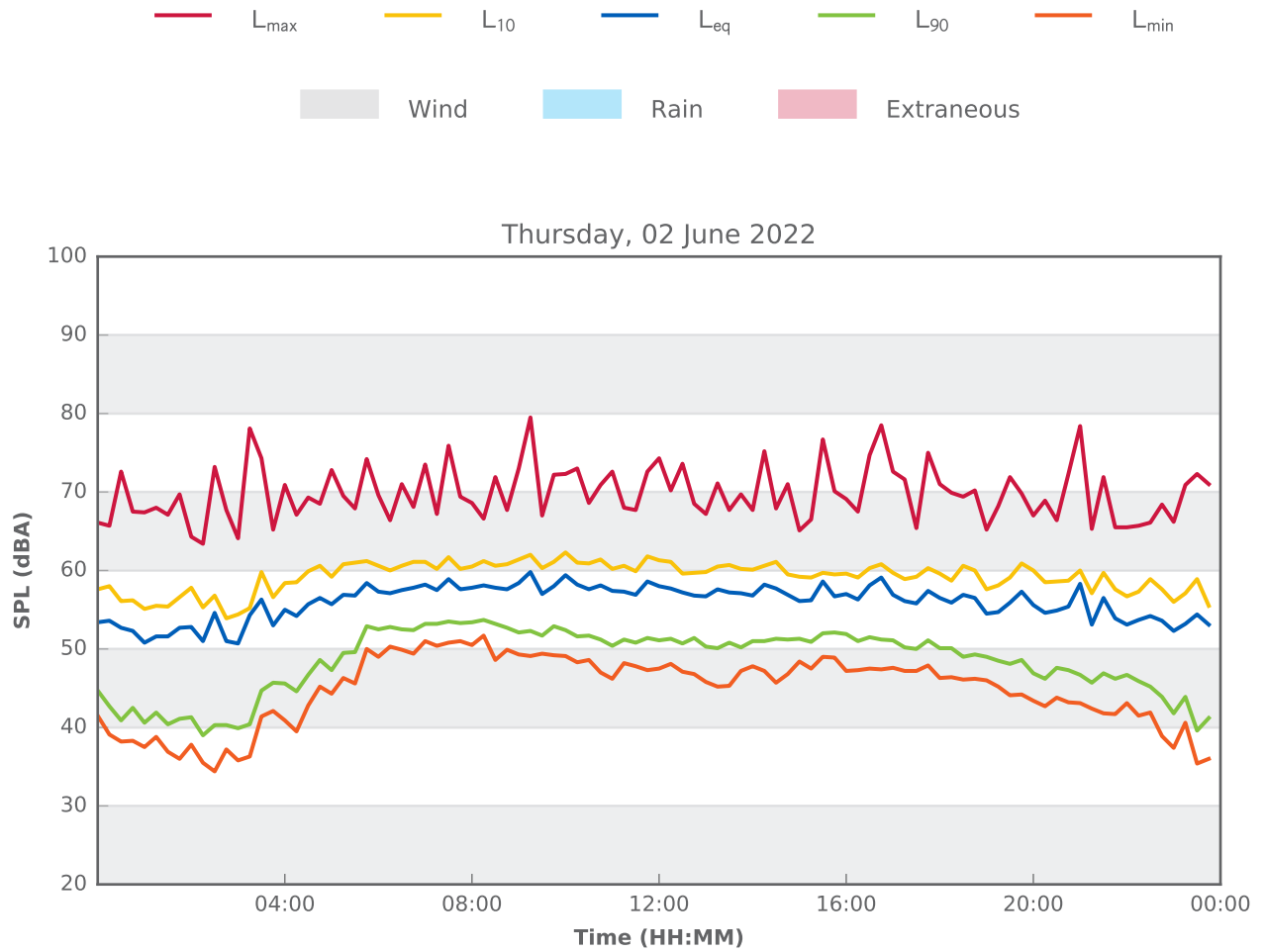




# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

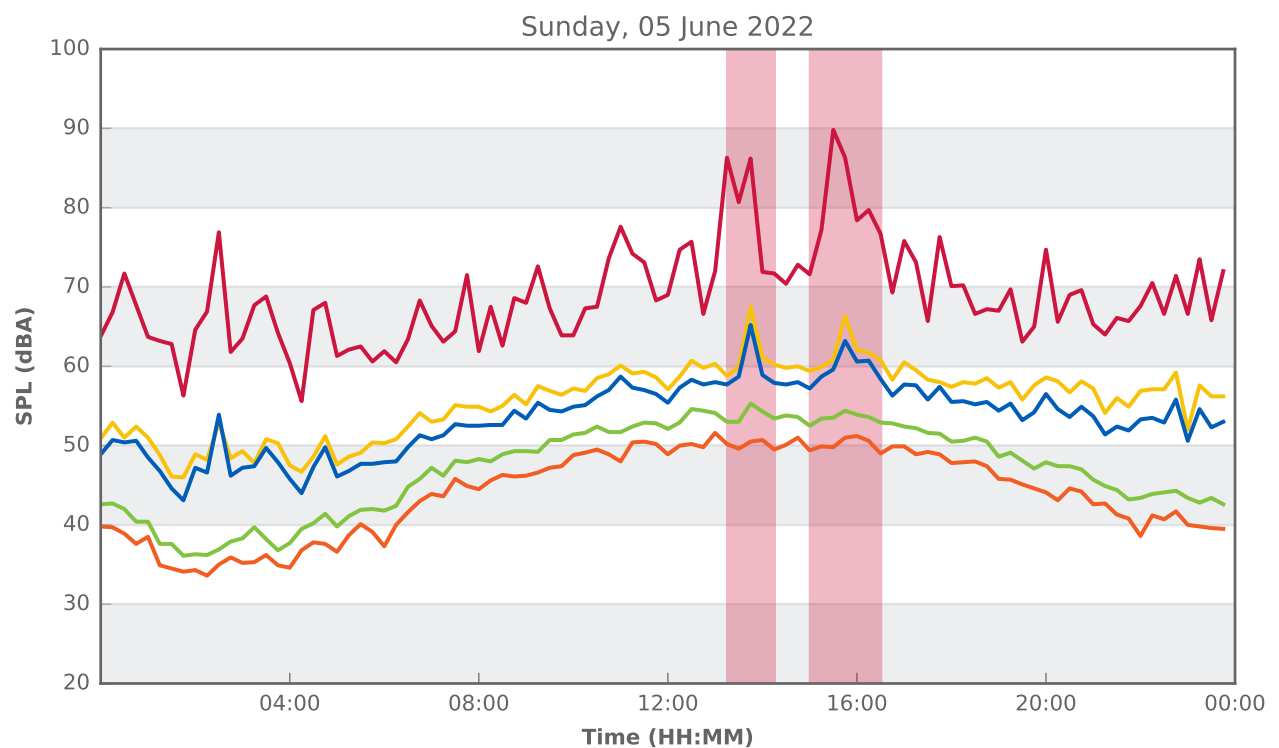


# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

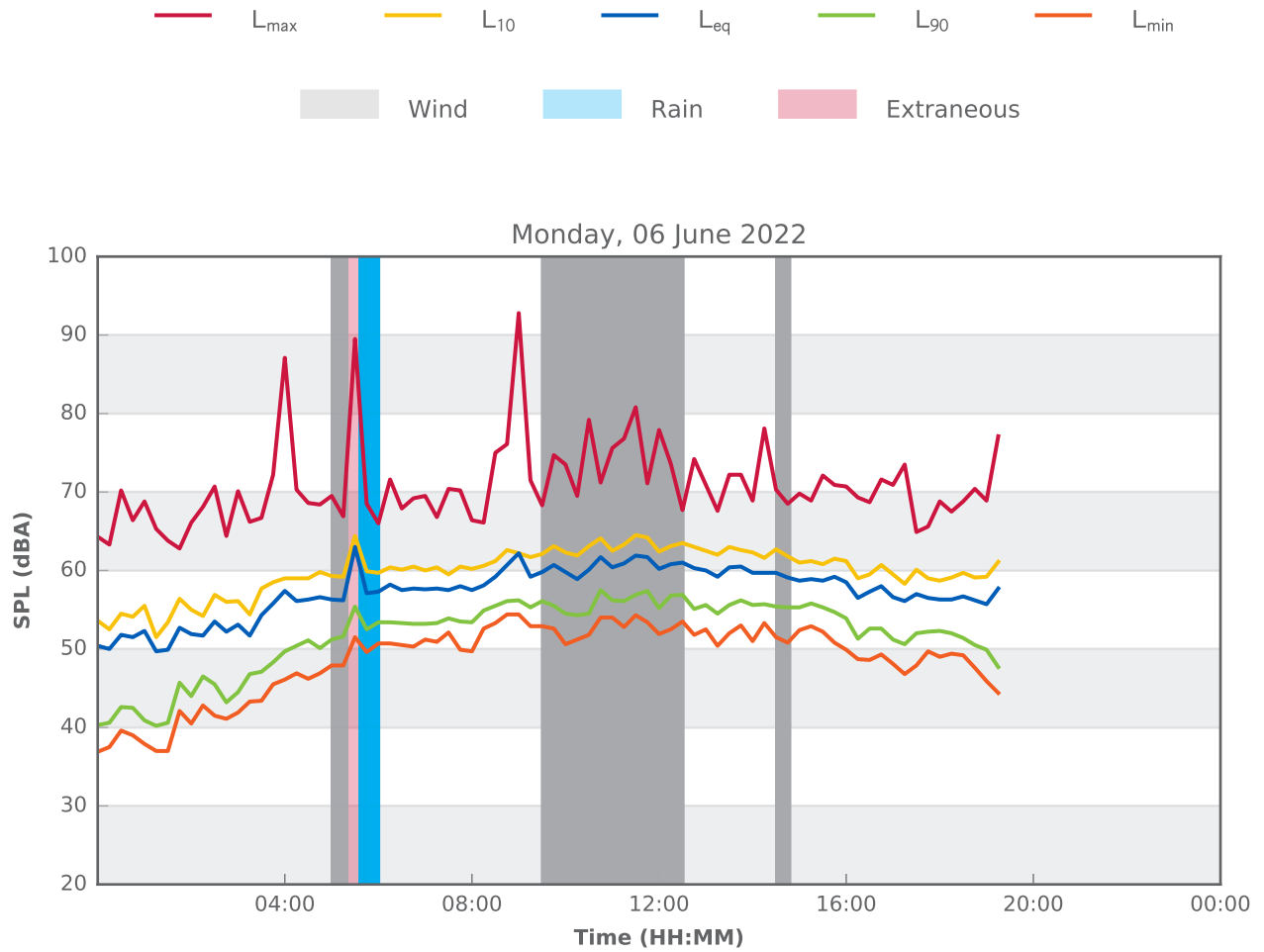




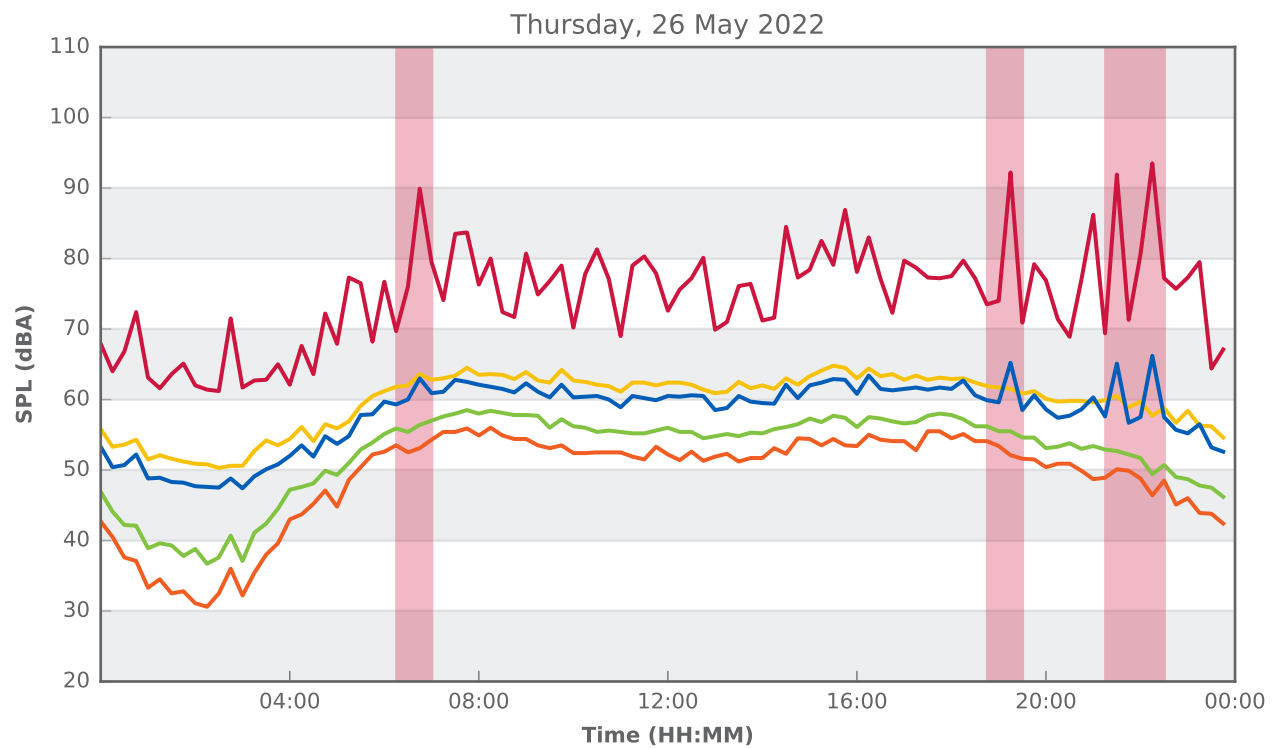
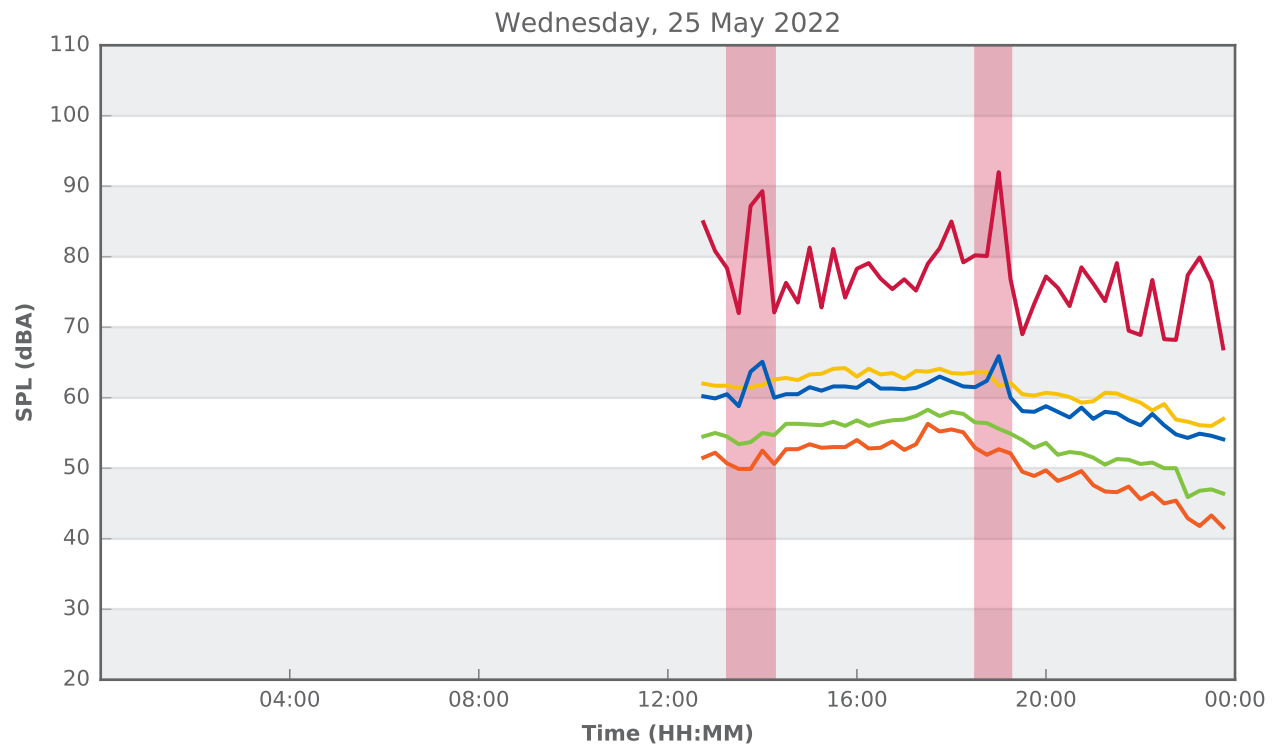
# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford



# NCA-10C-2238 - 32 Coral Tree Drive, Carlingford

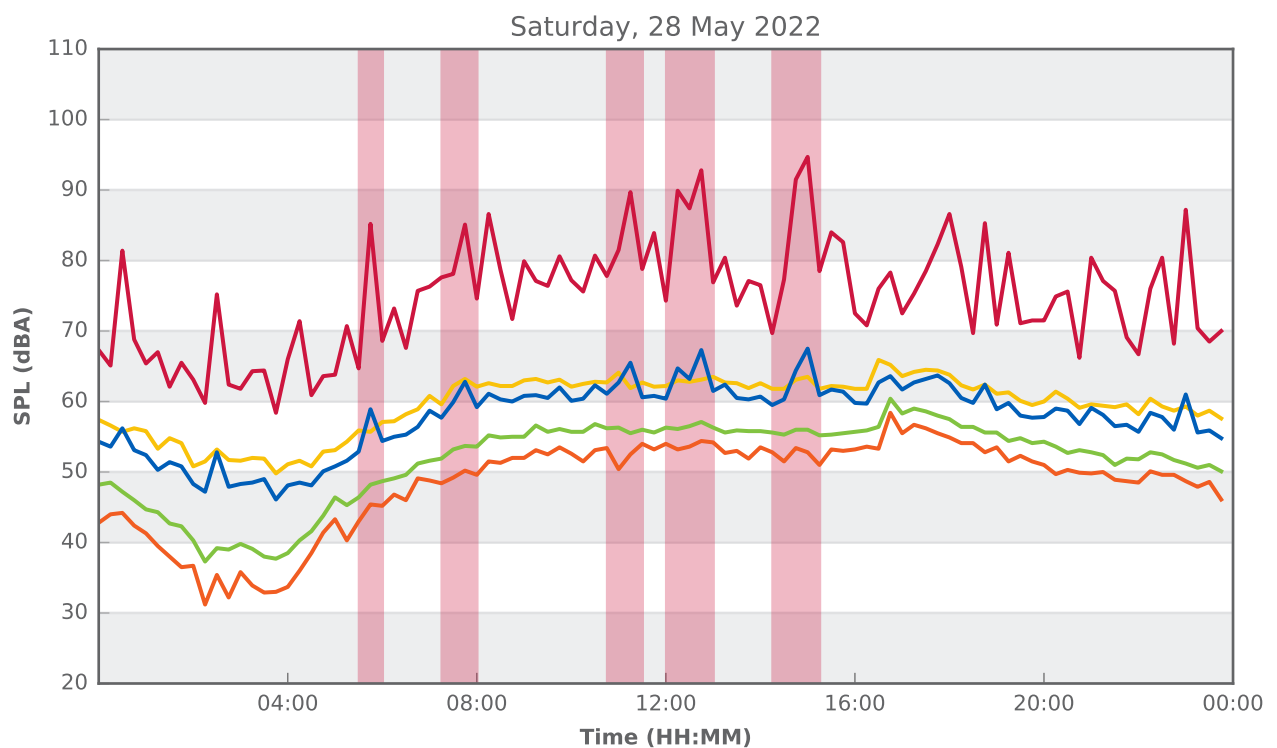
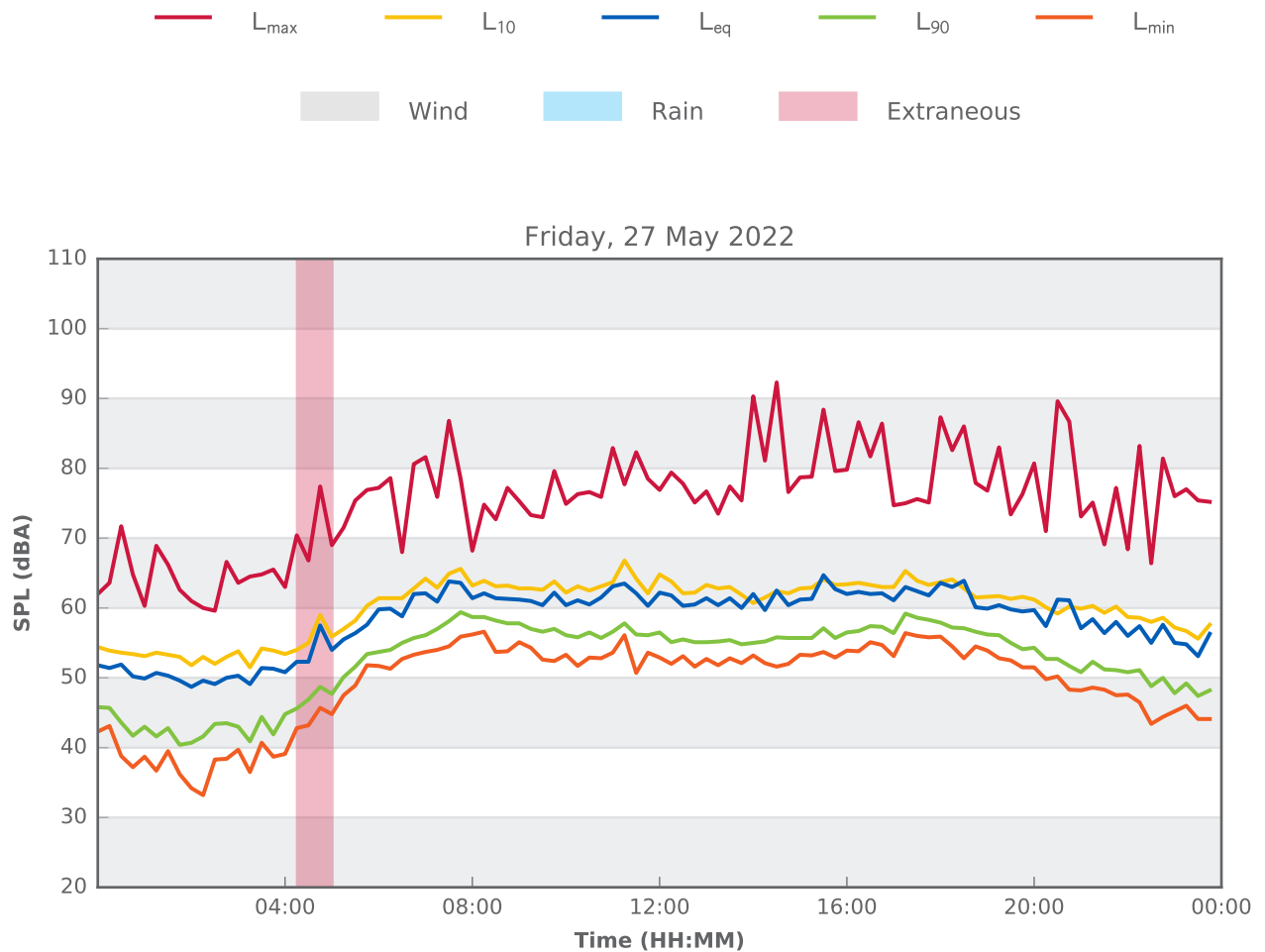


# NCA-10D-B17 - 58 Oakes Road, Carlingford

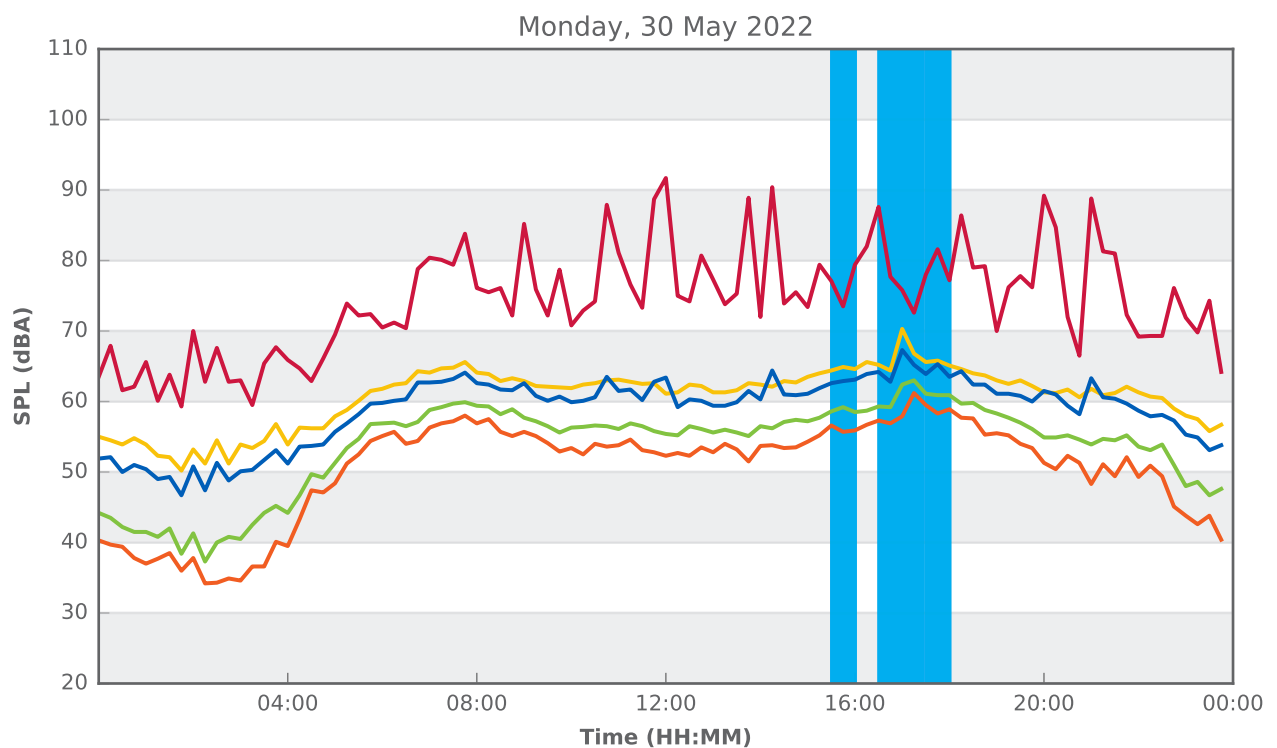
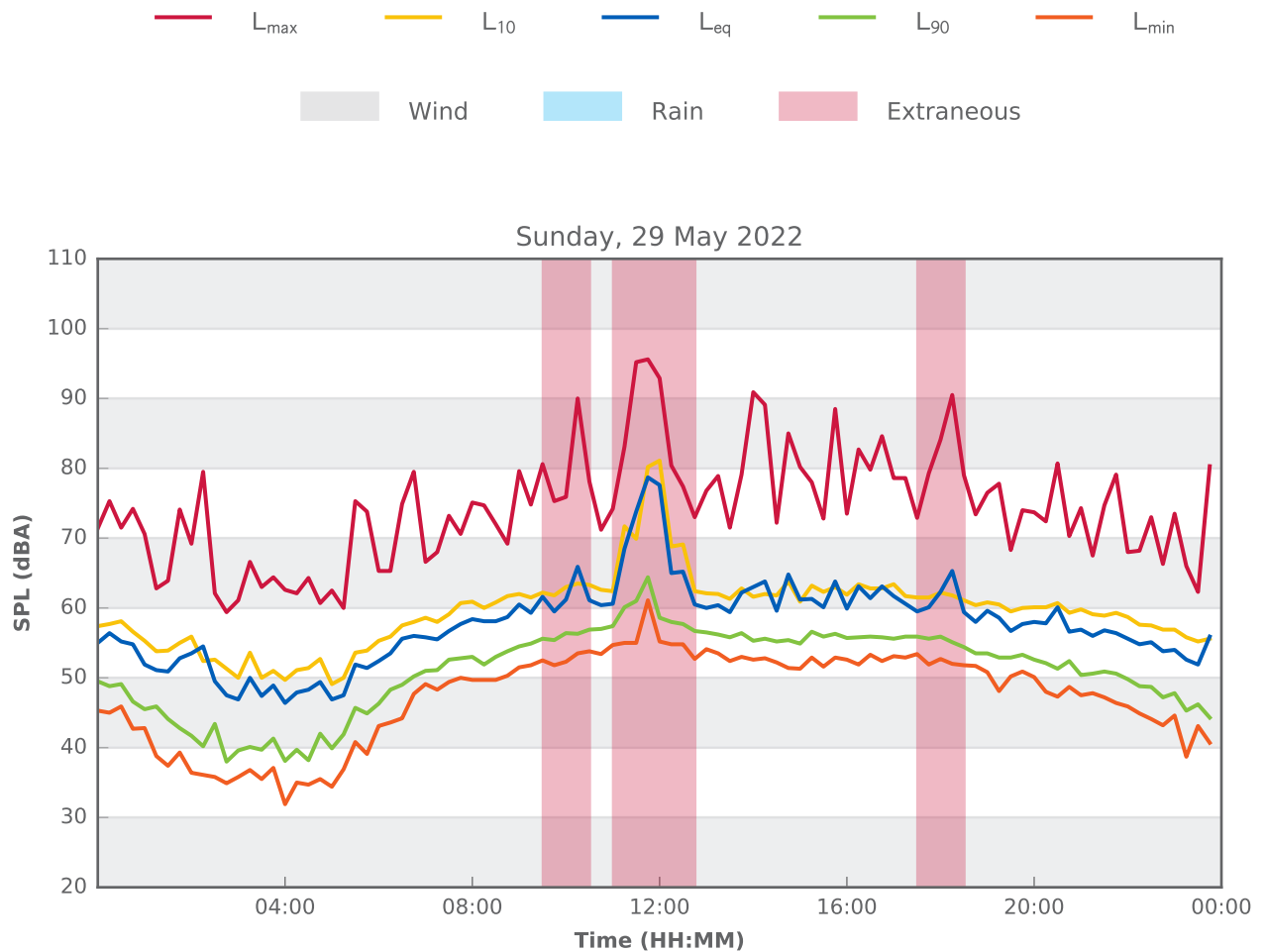




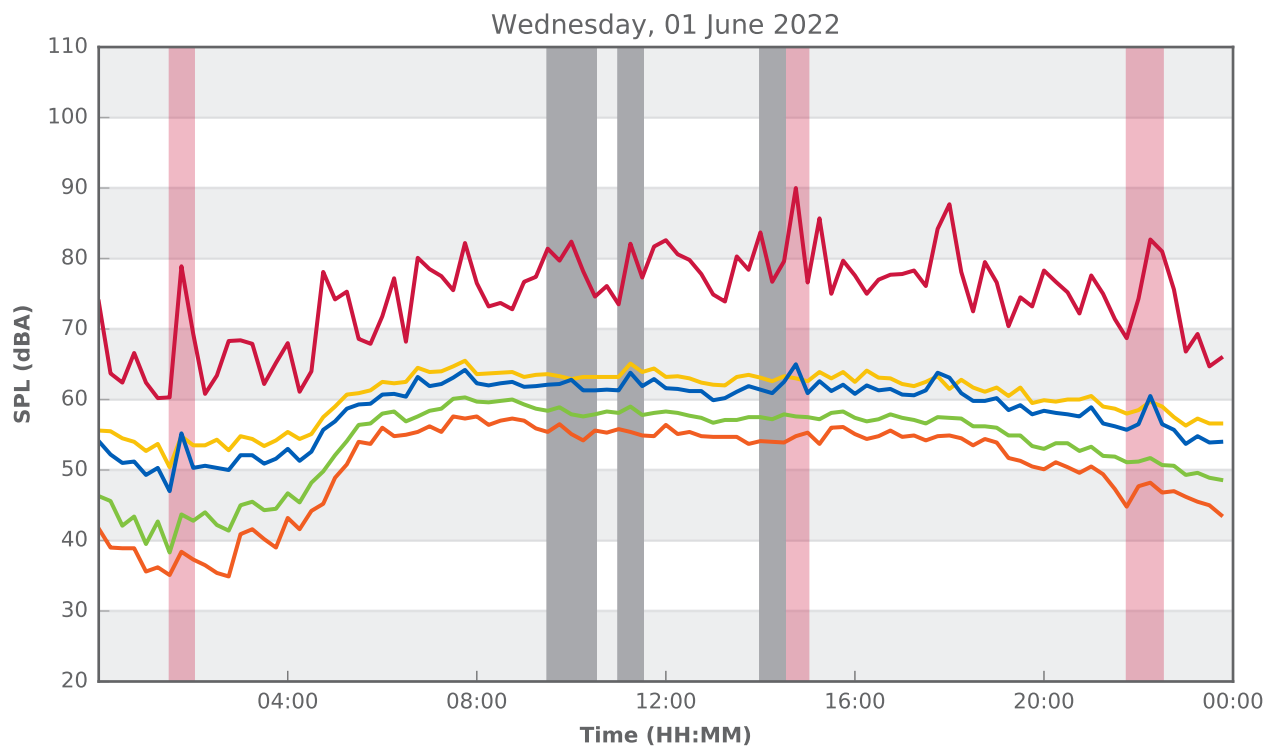
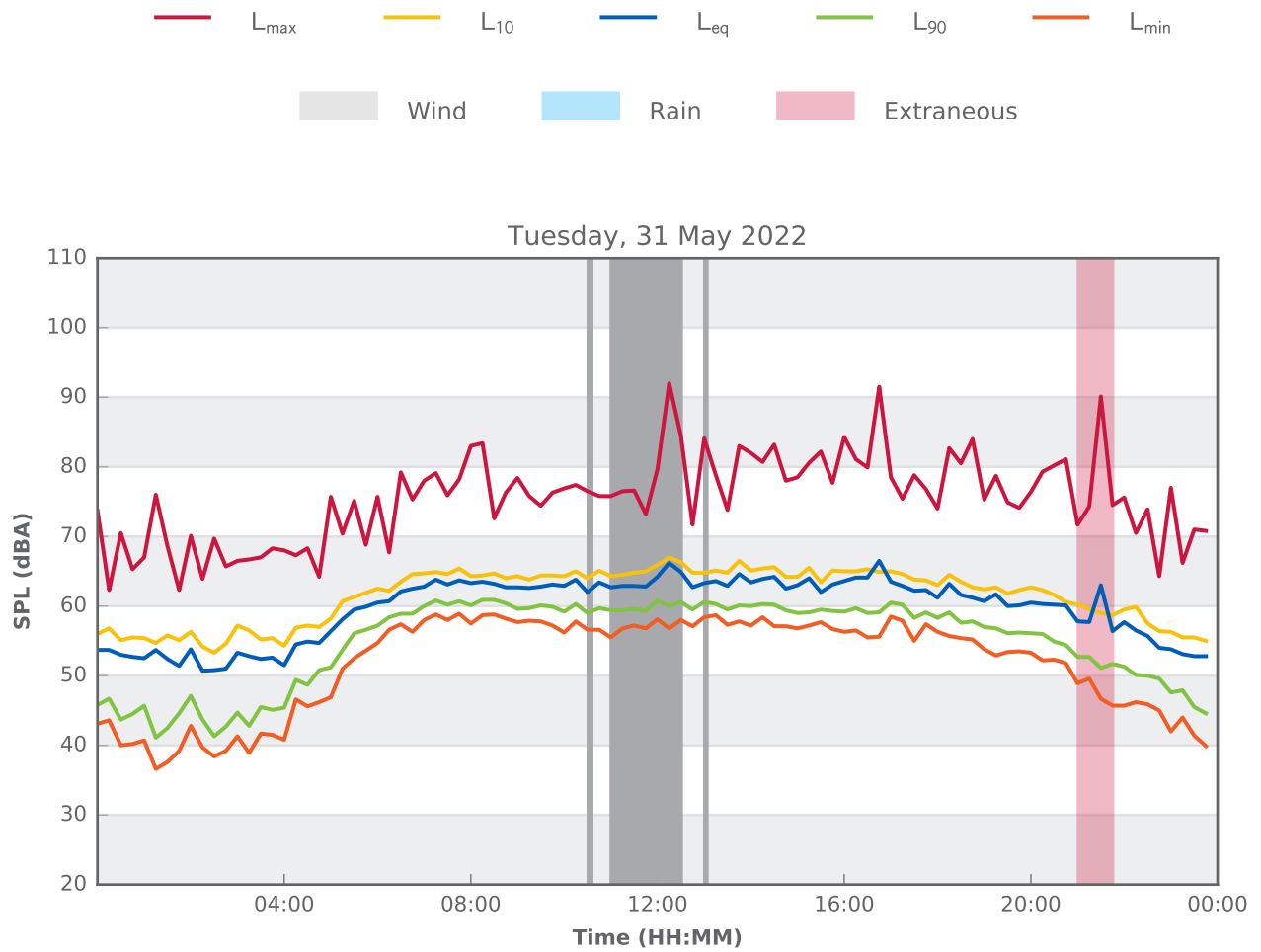
# NCA-10D-B17 - 58 Oakes Road, Carlingford



# NCA-10D-B17 - 58 Oakes Road, Carlingford

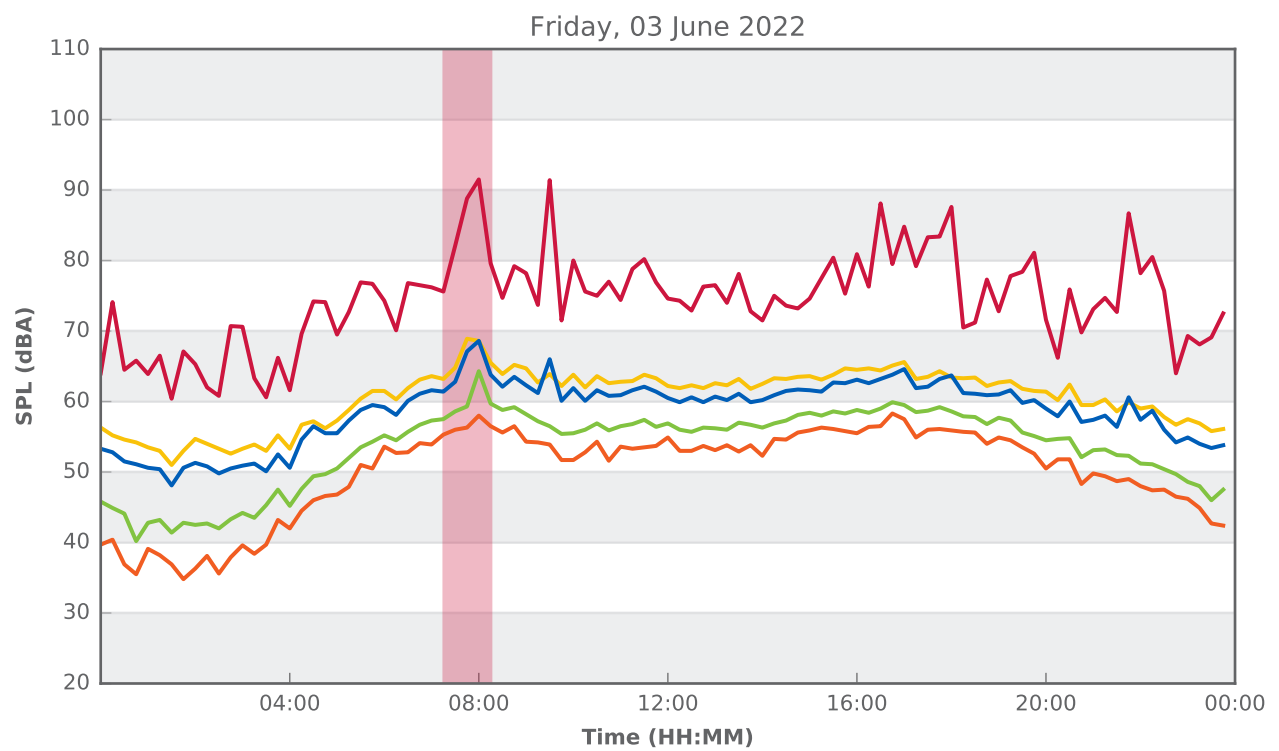
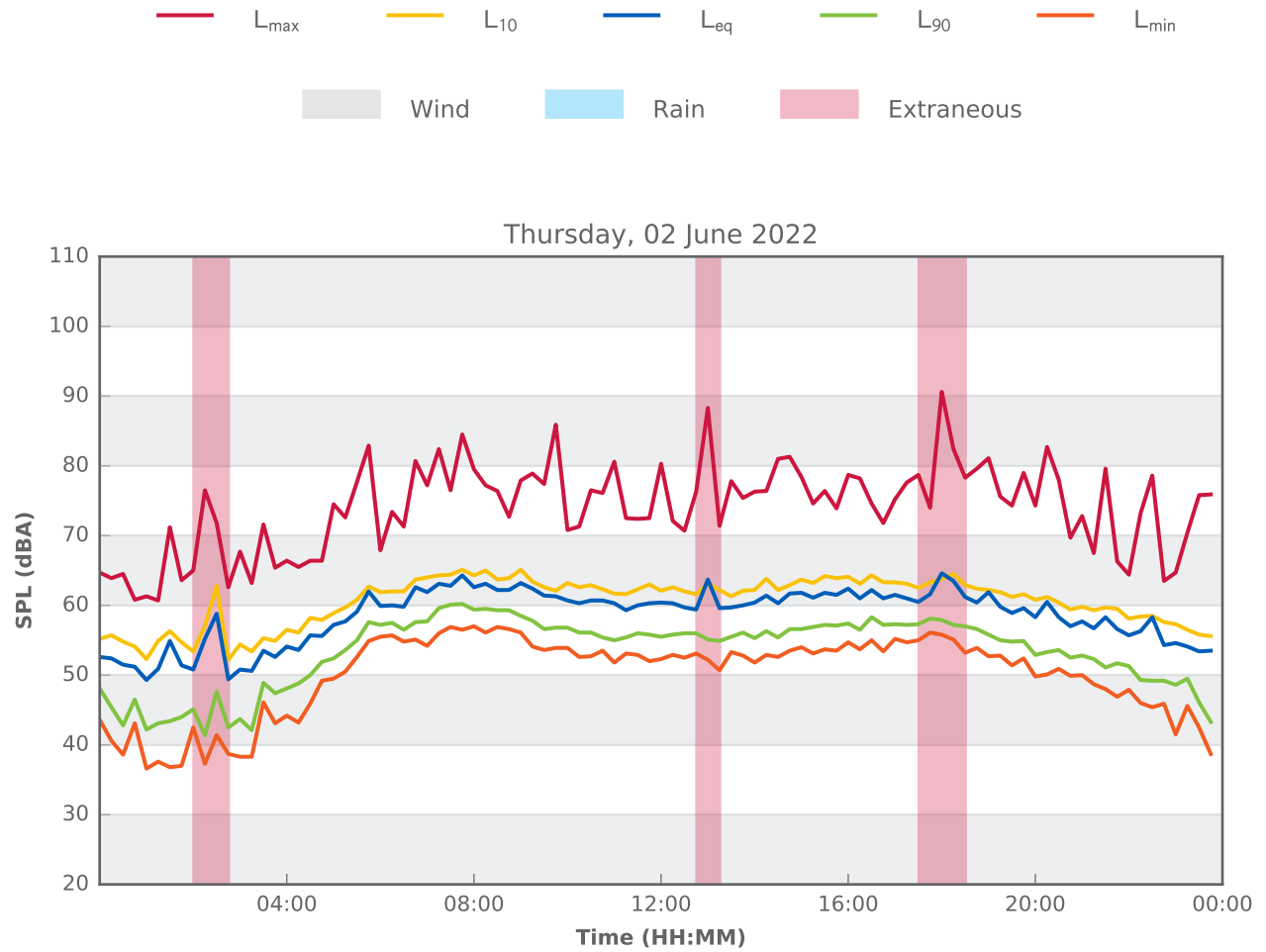


# NCA-10D-B17 - 58 Oakes Road, Carlingford

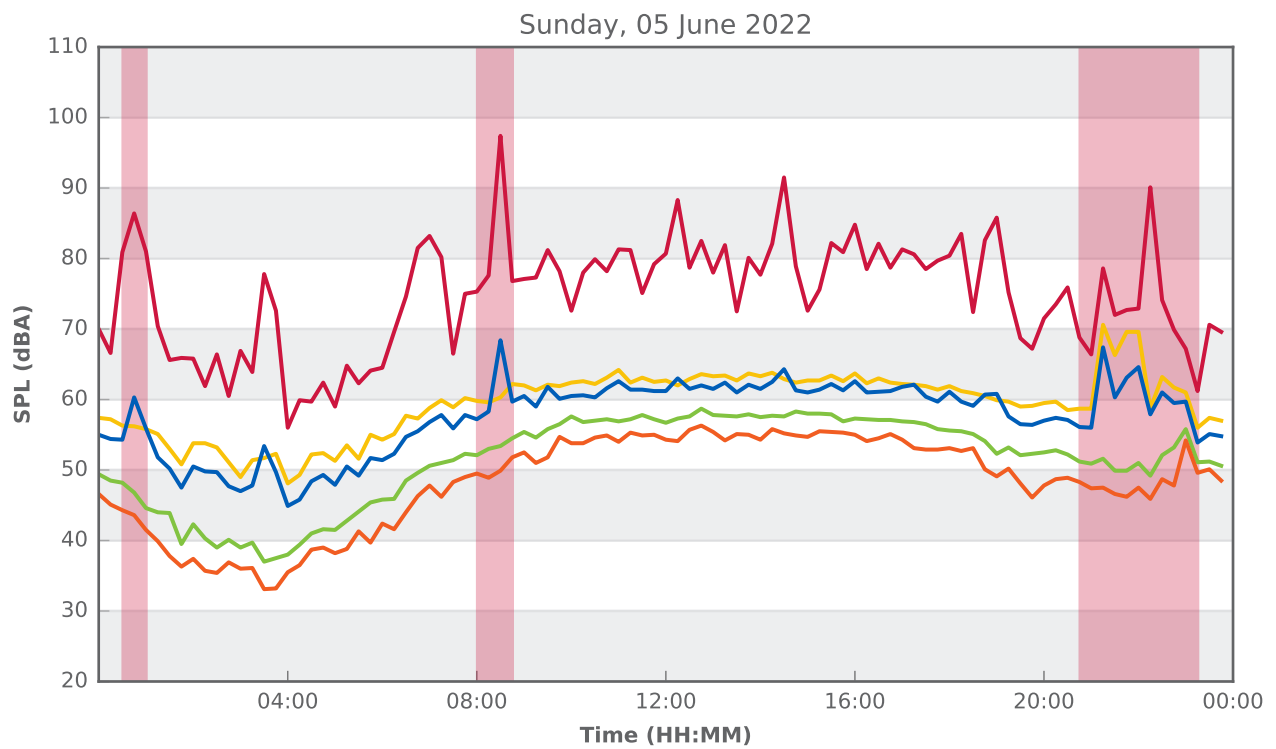
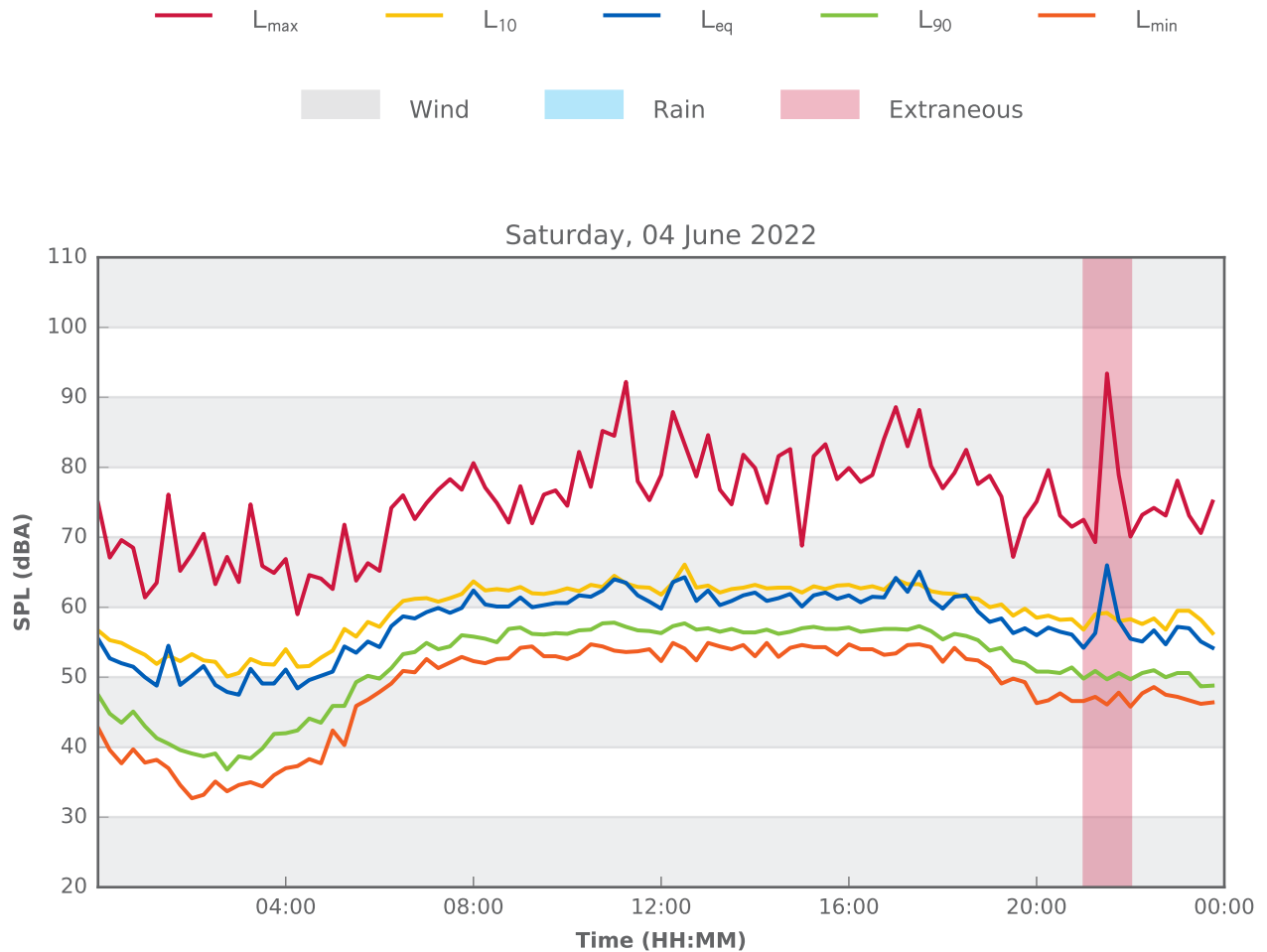




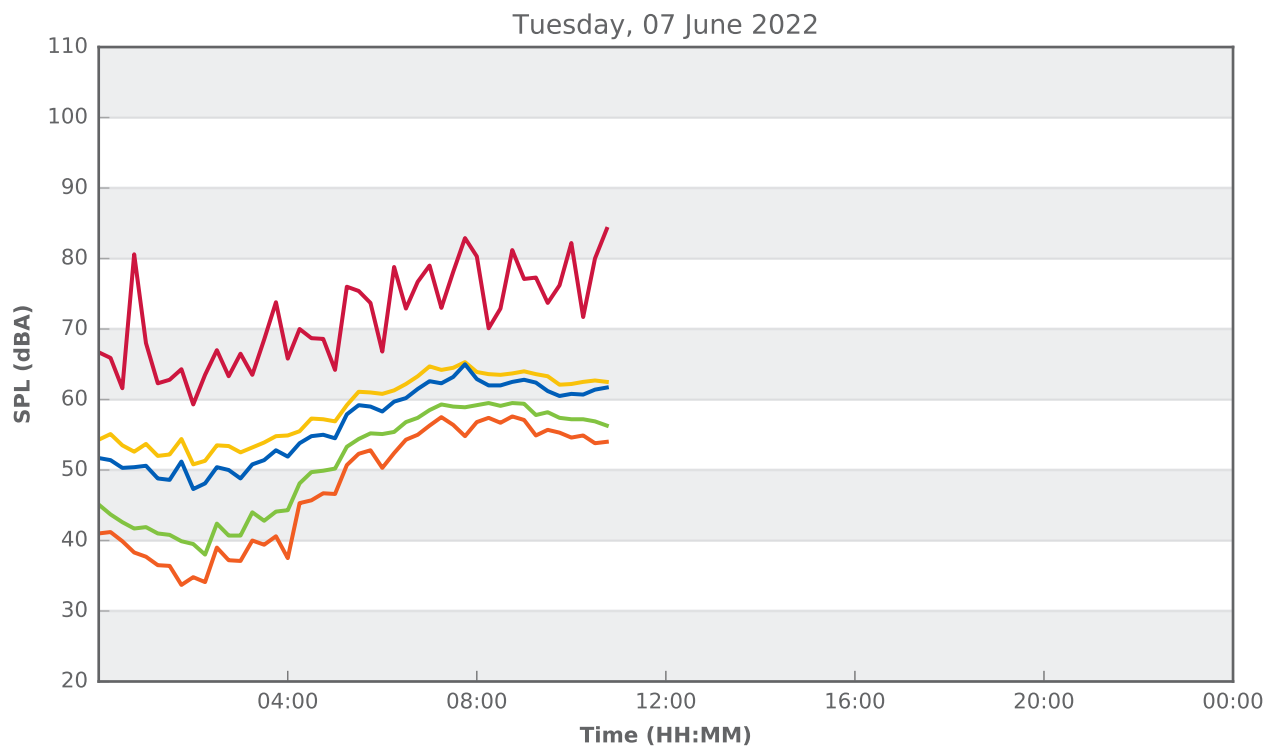
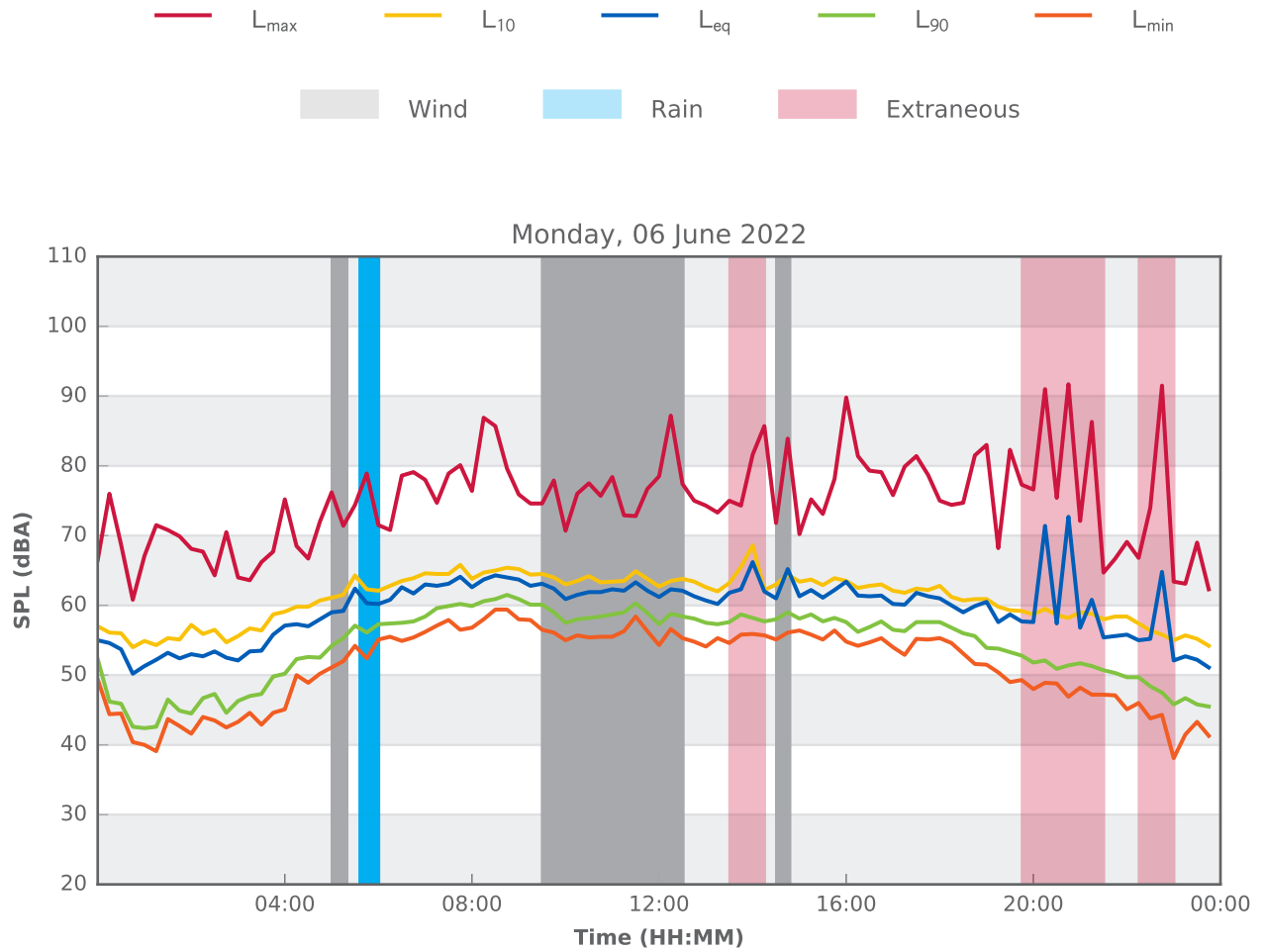
# NCA-10D-B17 - 58 Oakes Road, Carlingford



# NCA-10D-B17 - 58 Oakes Road, Carlingford

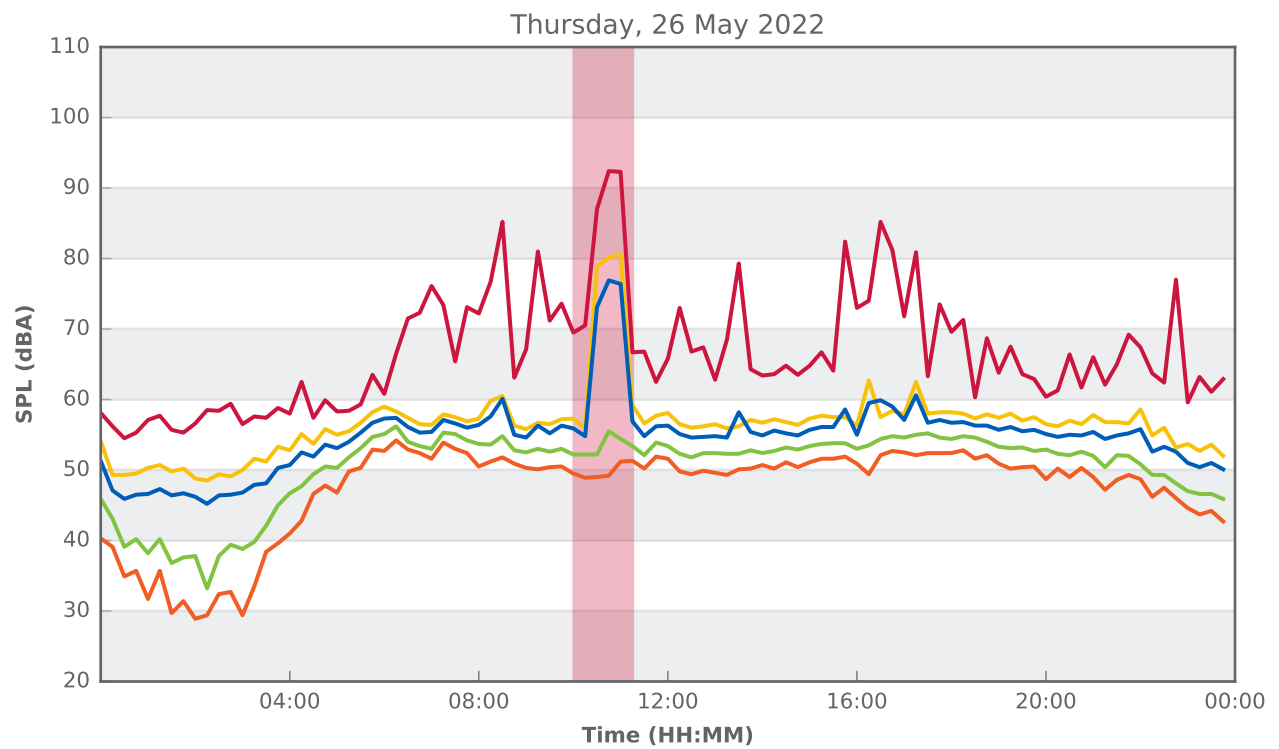
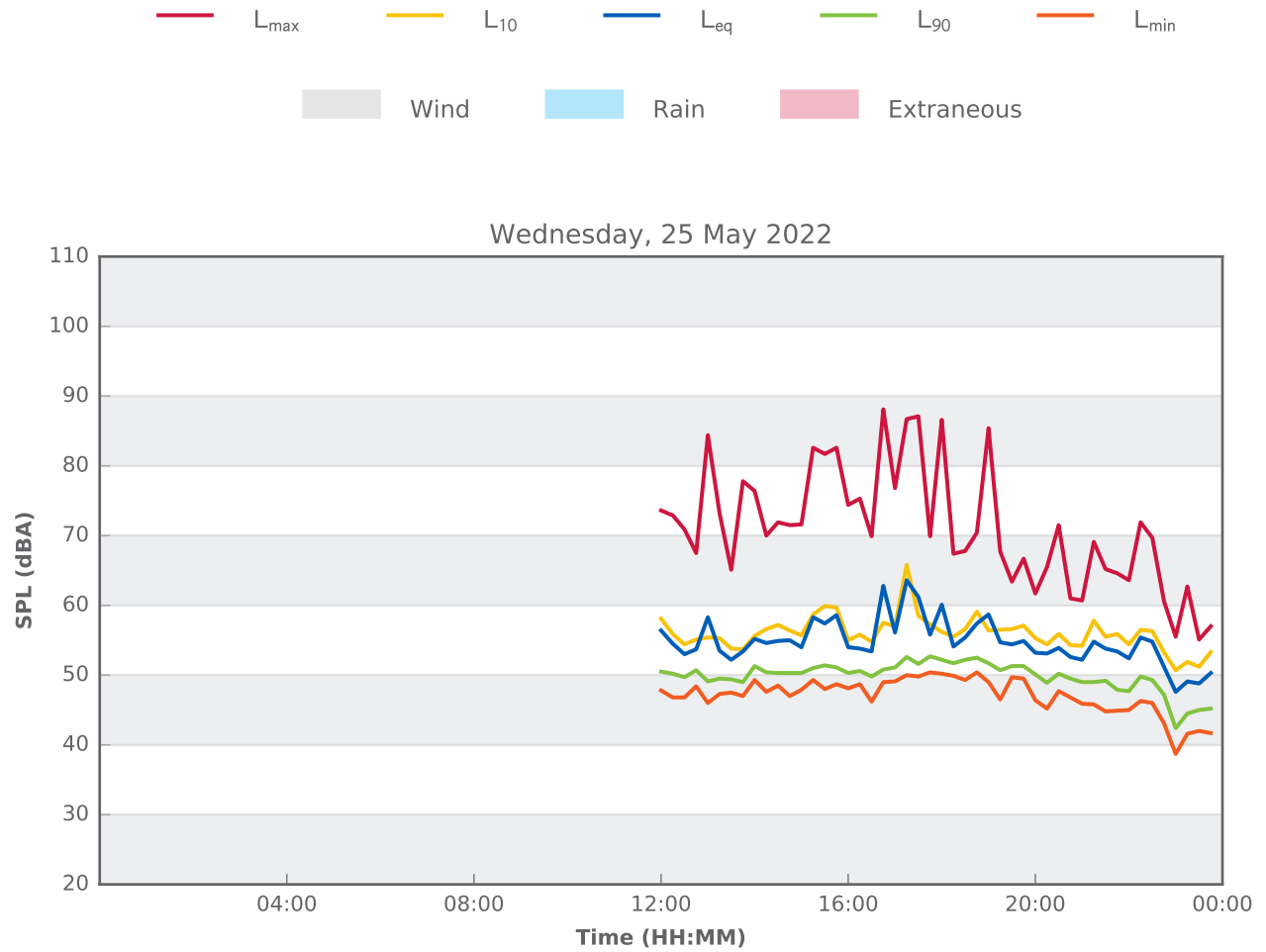


# NCA-10D-B17 - 58 Oakes Road, Carlingford

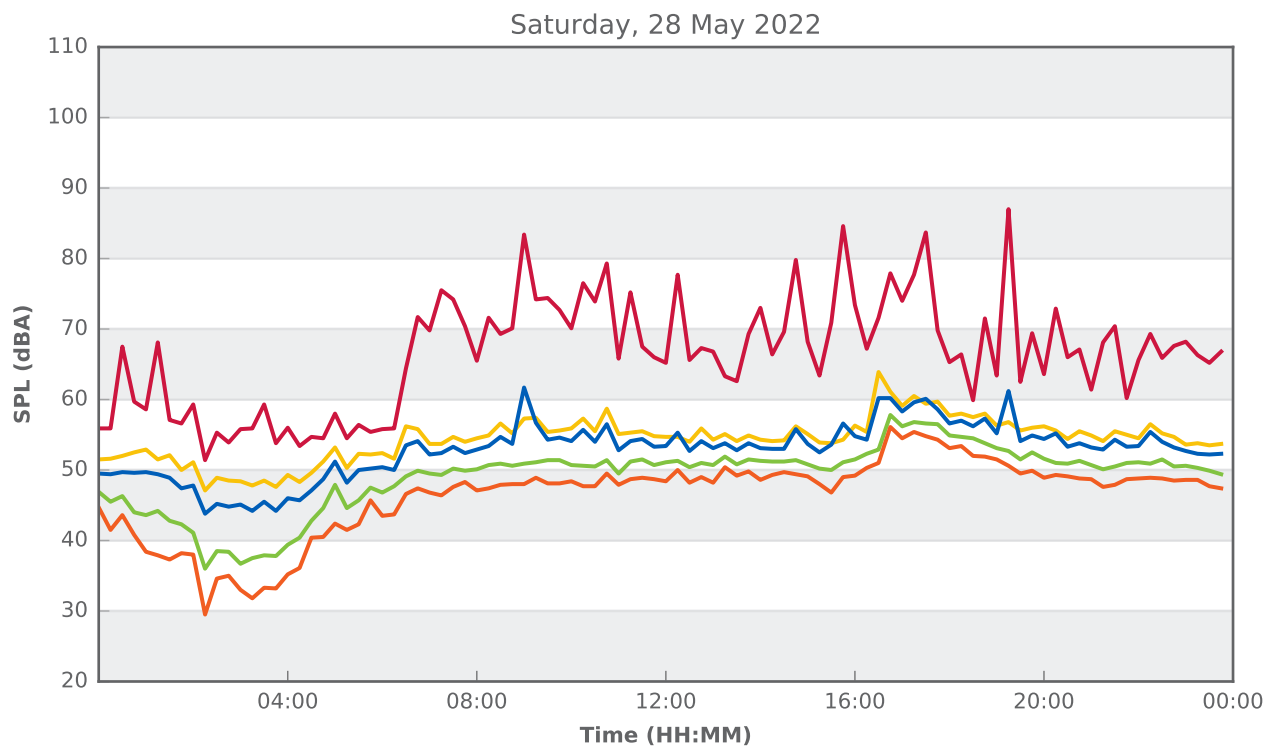
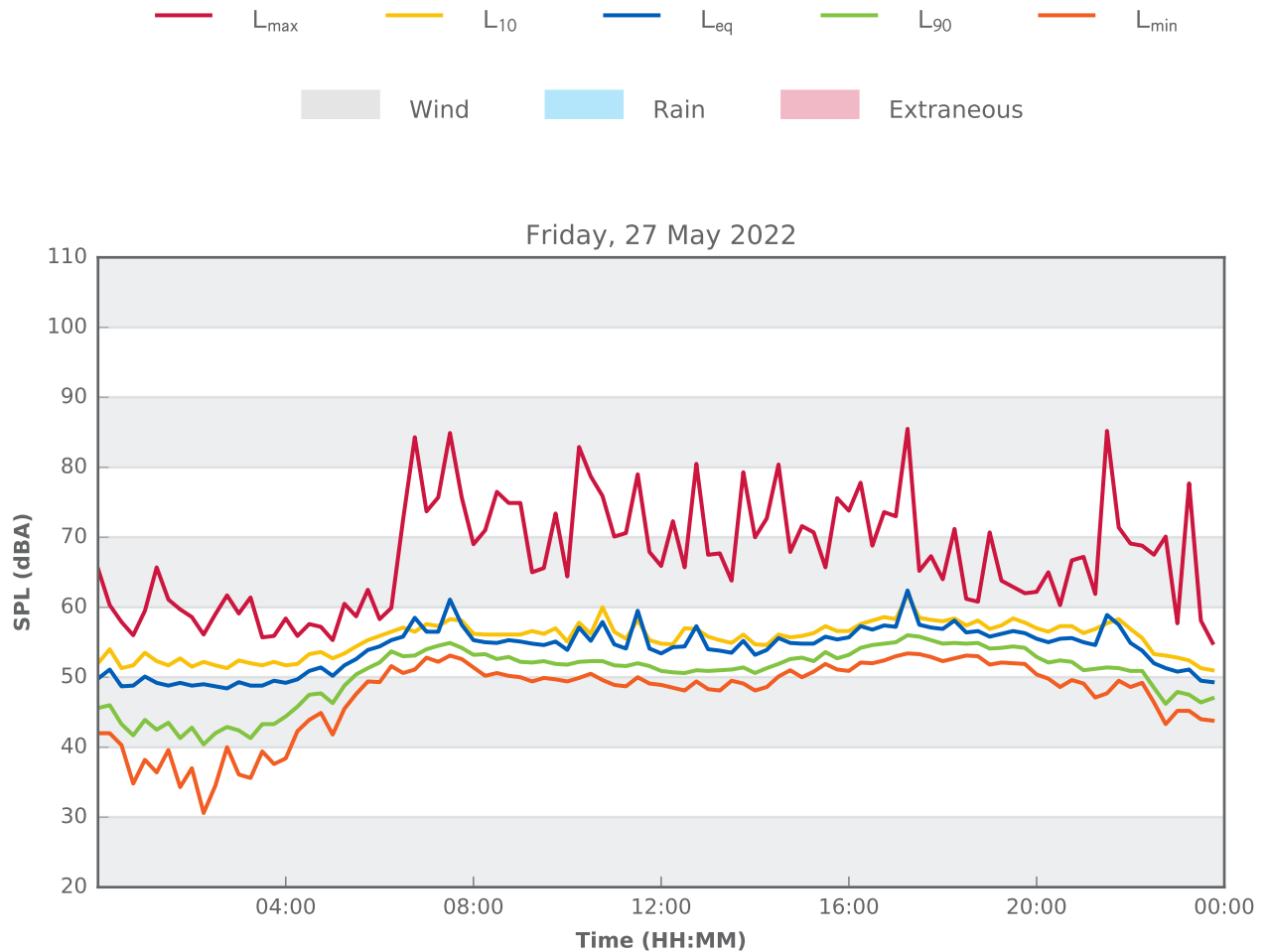




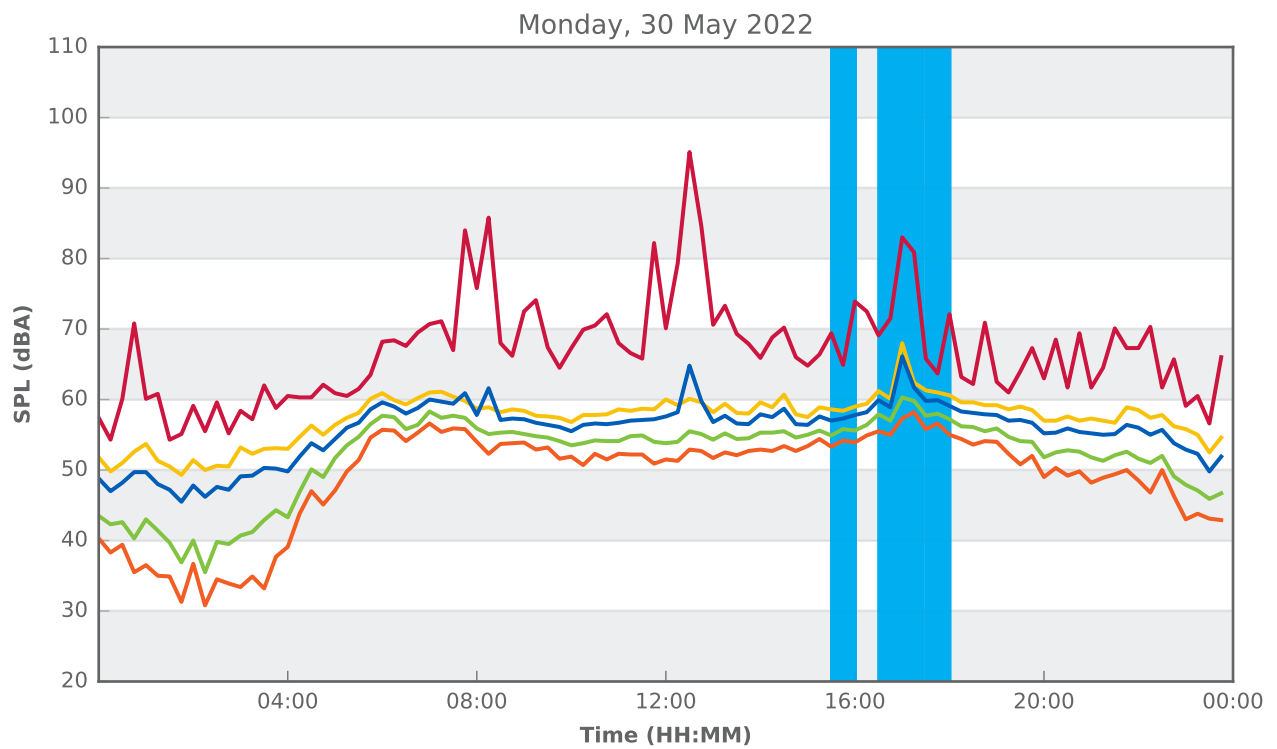
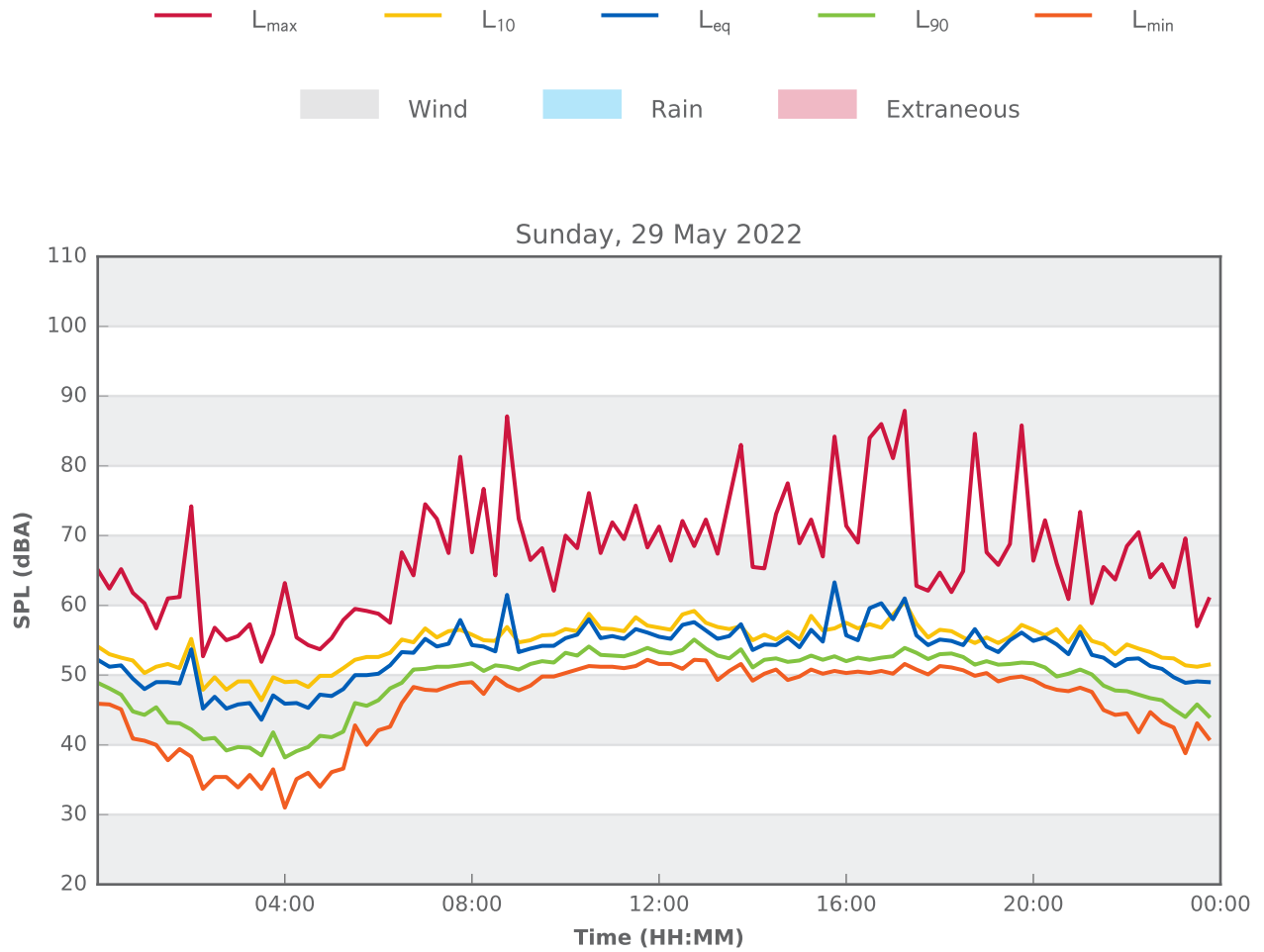
# NCA-11B-T11 - 66 Carmen Drive, Carlingford



# NCA-11B-T11 - 66 Carmen Drive, Carlingford

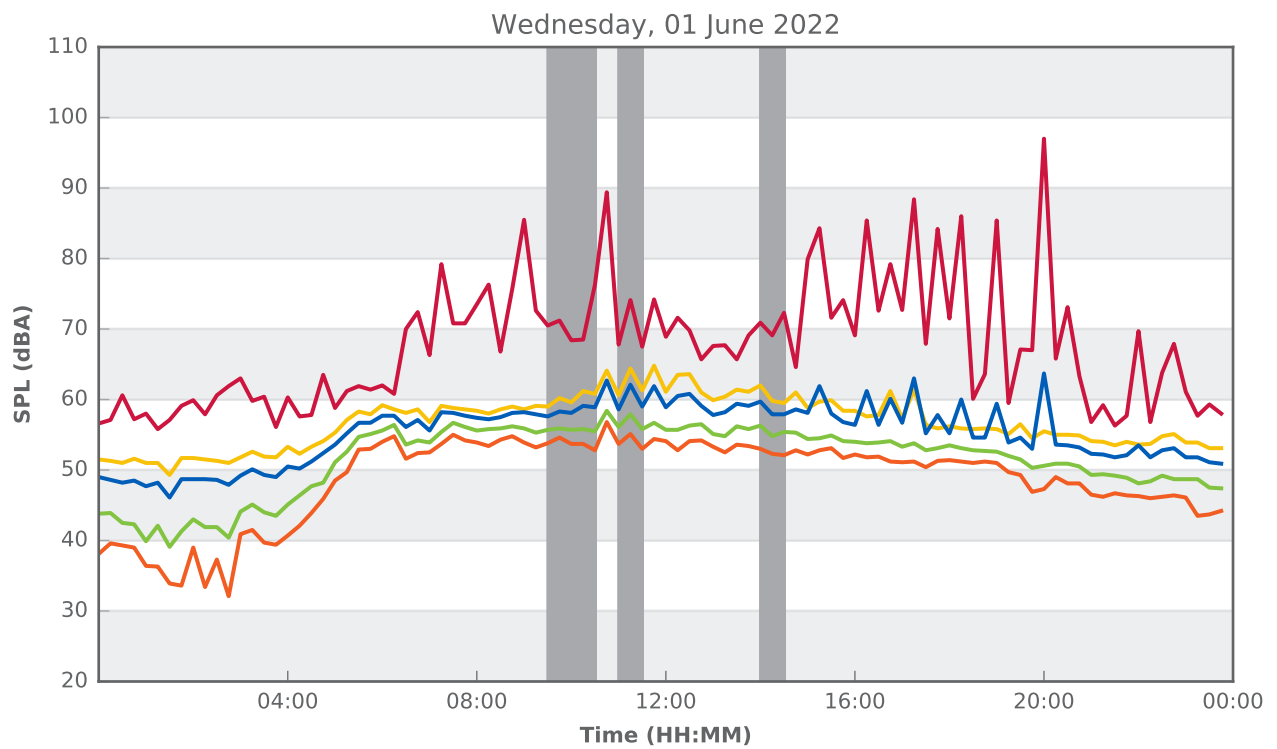
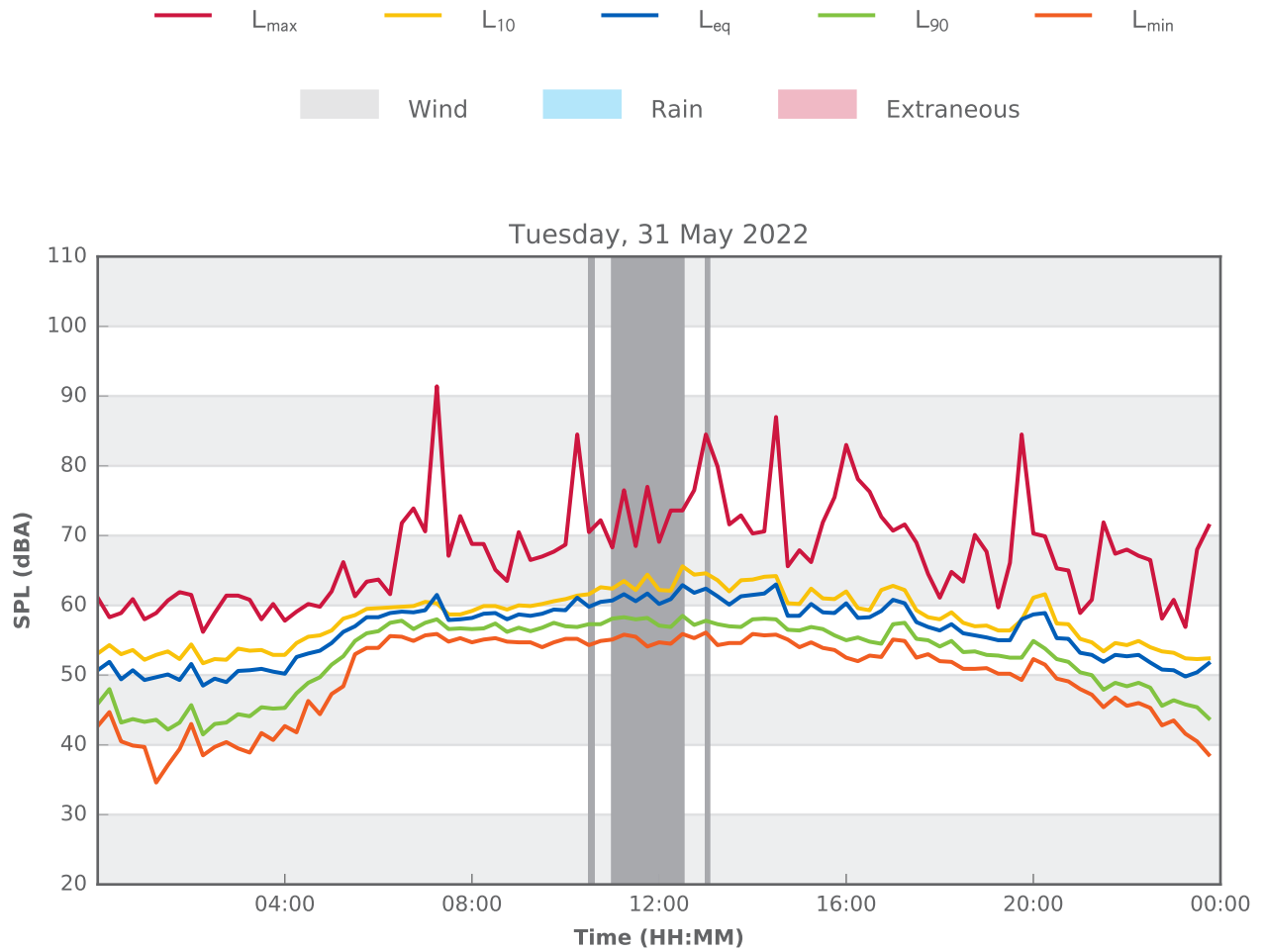


# NCA-11B-T11 - 66 Carmen Drive, Carlingford

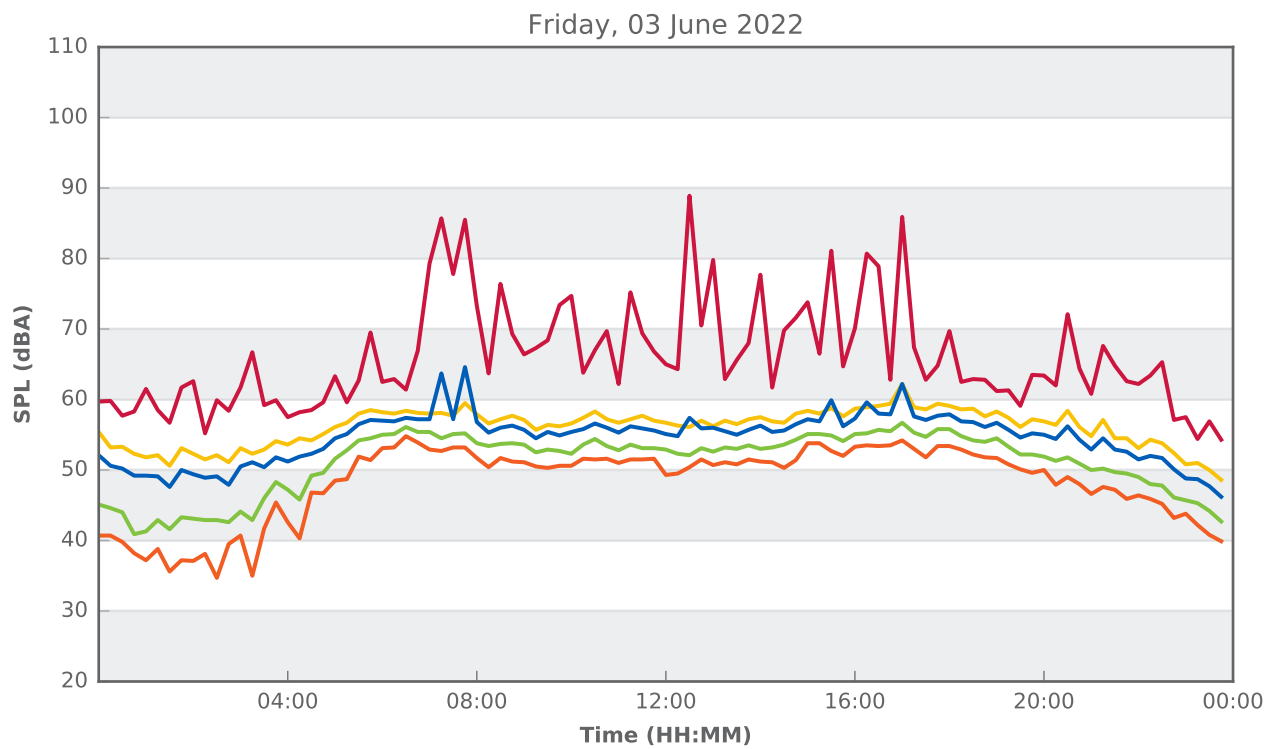
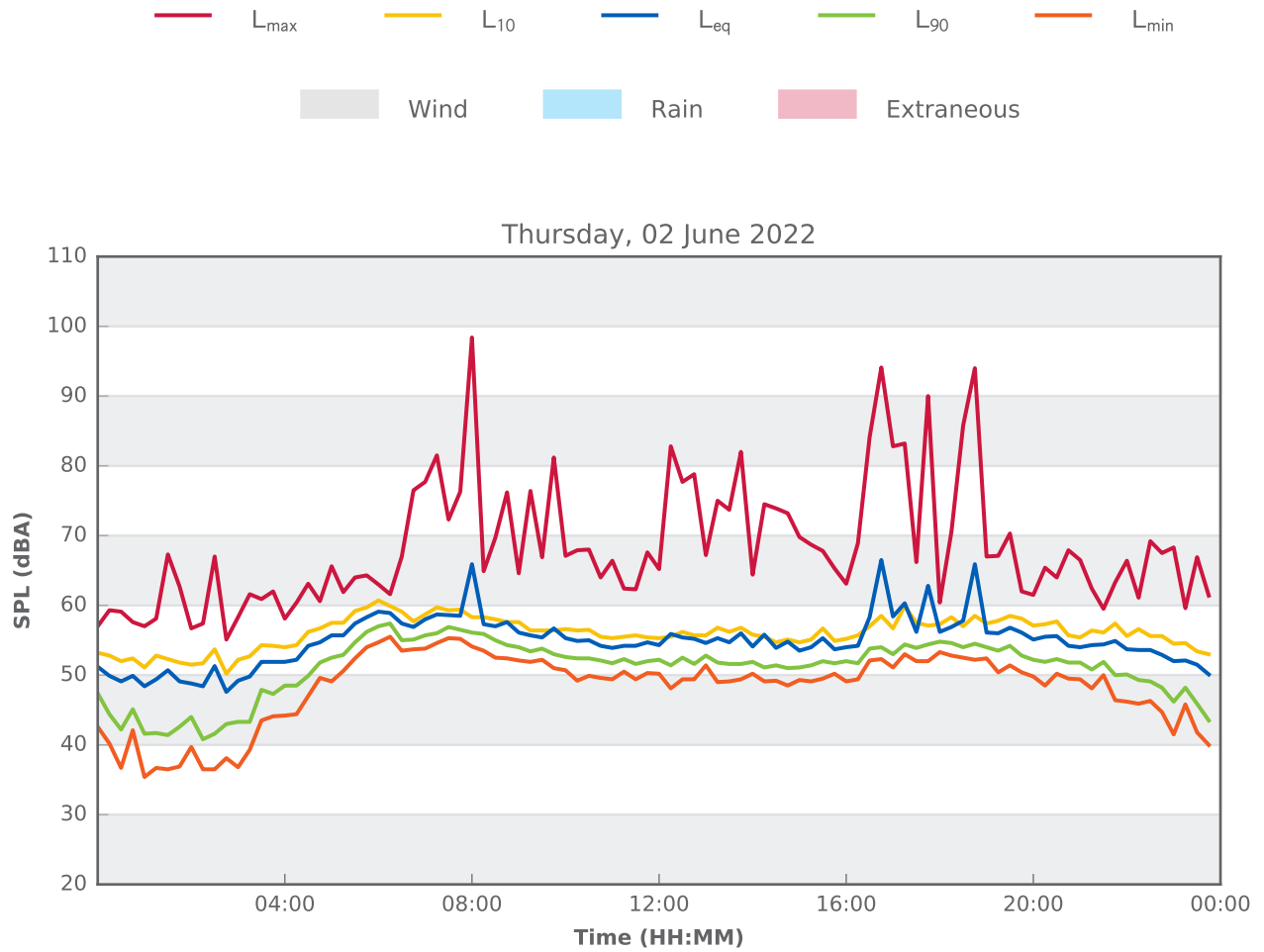




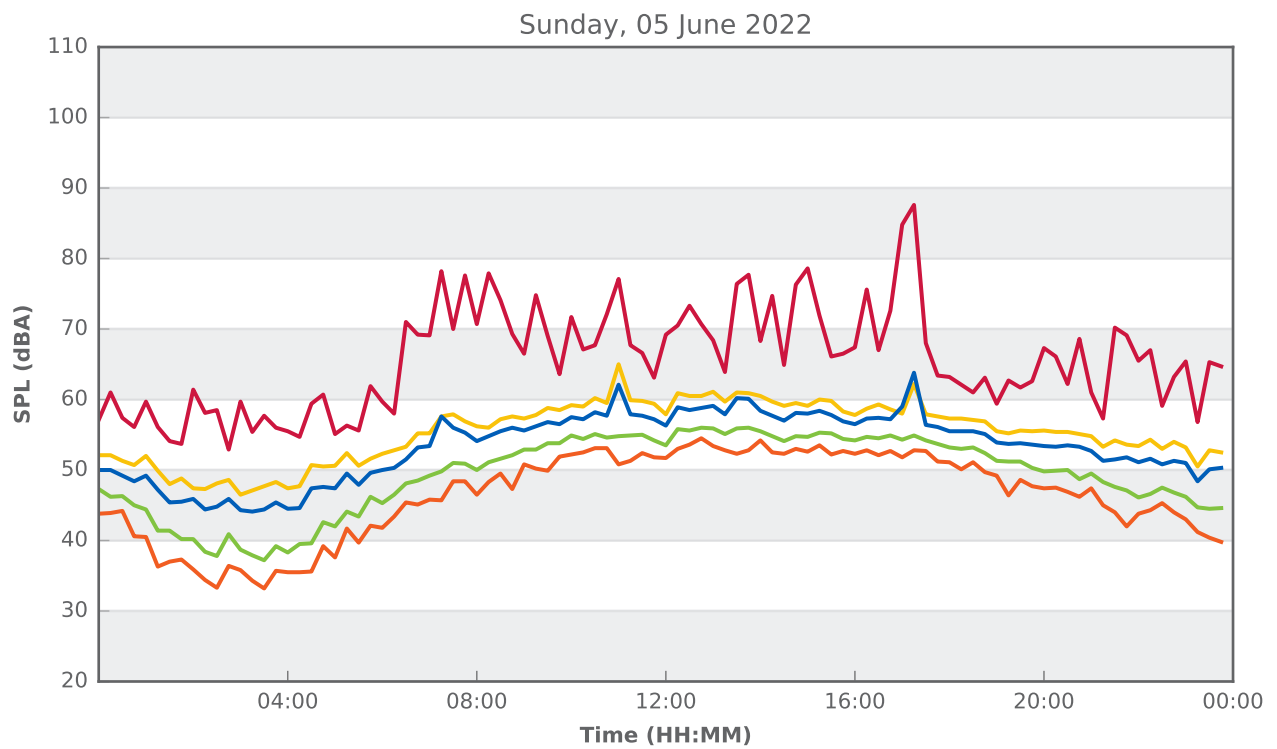
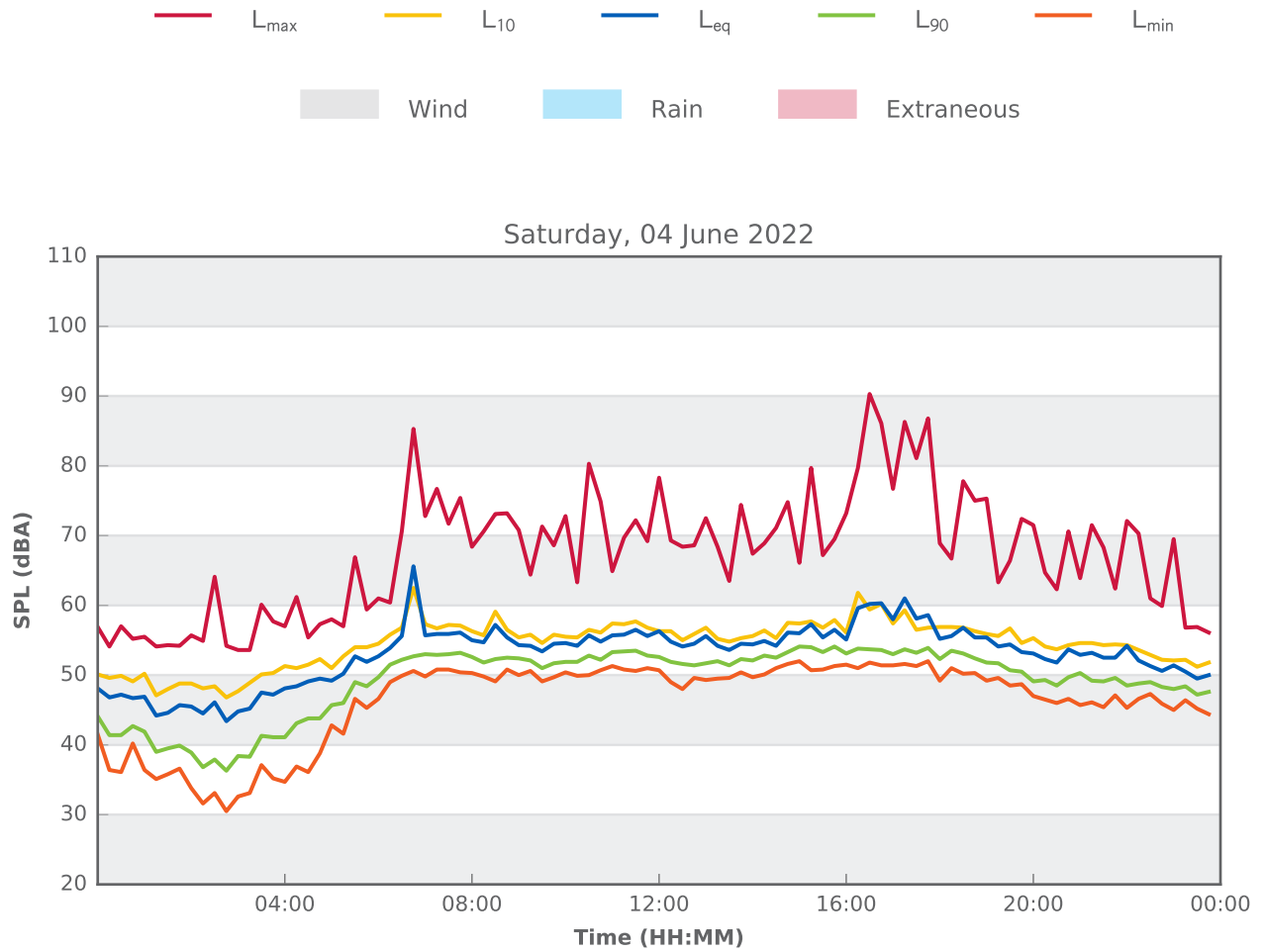
# NCA-11B-T11 - 66 Carmen Drive, Carlingford



# NCA-11B-T11 - 66 Carmen Drive, Carlingford

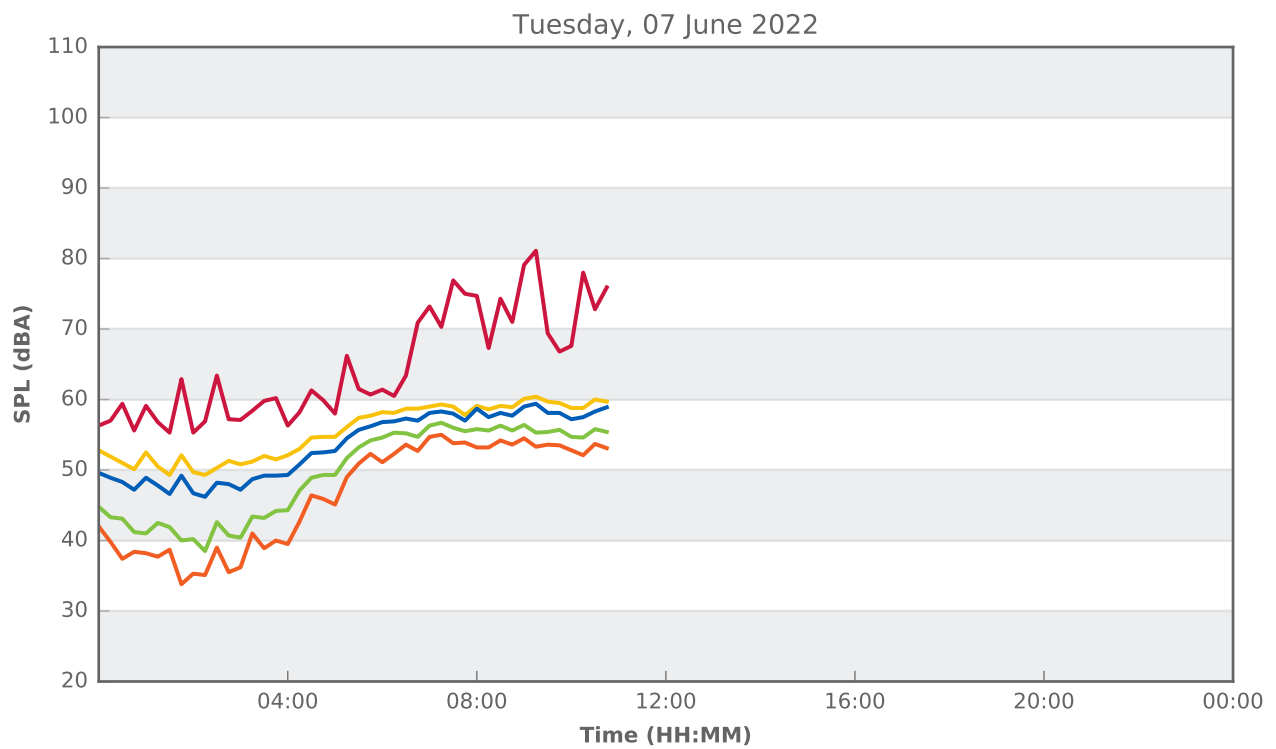
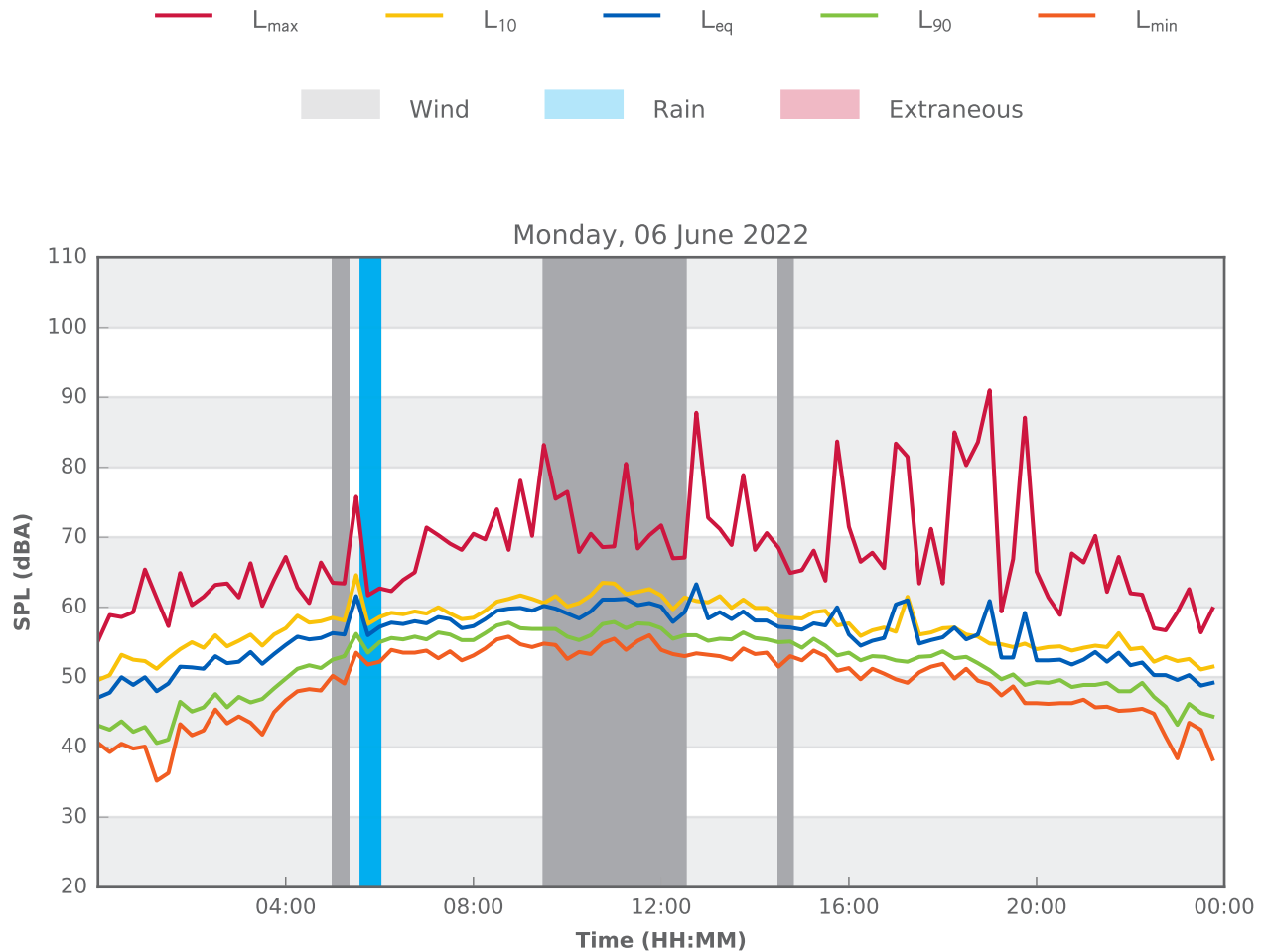


# NCA-11B-T11 - 66 Carmen Drive, Carlingford

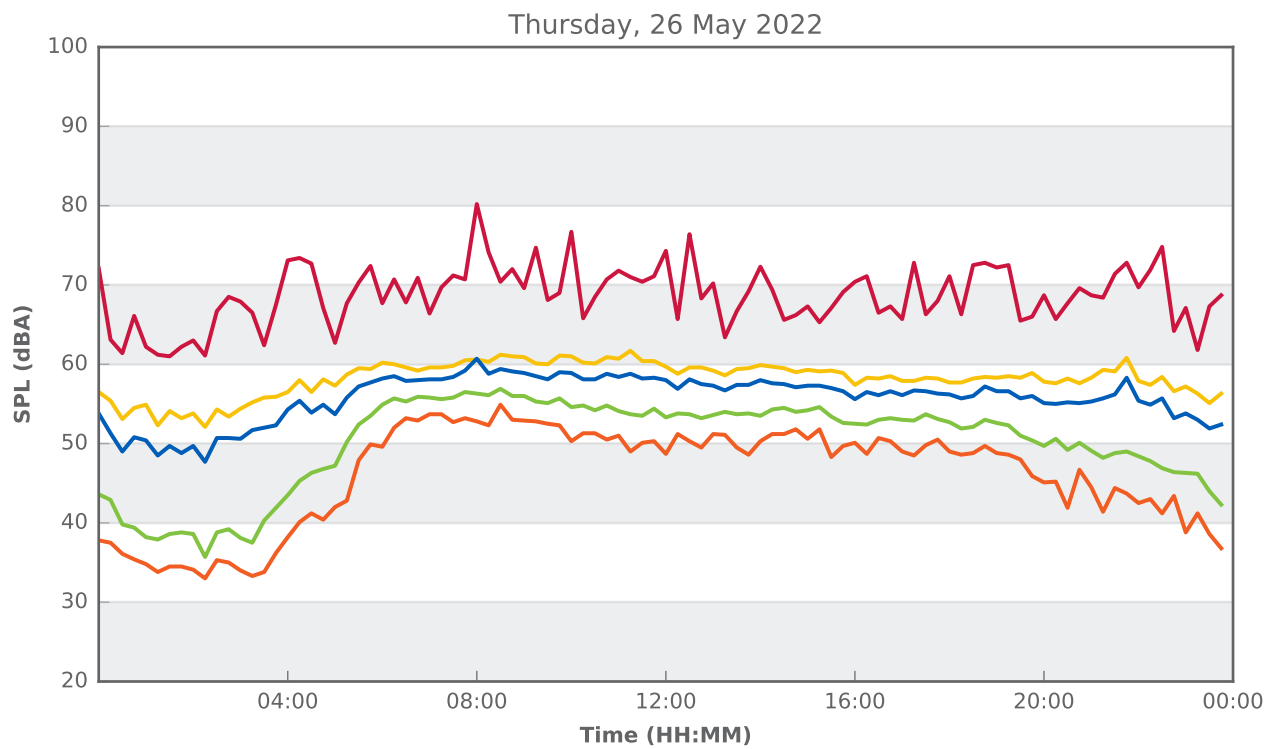
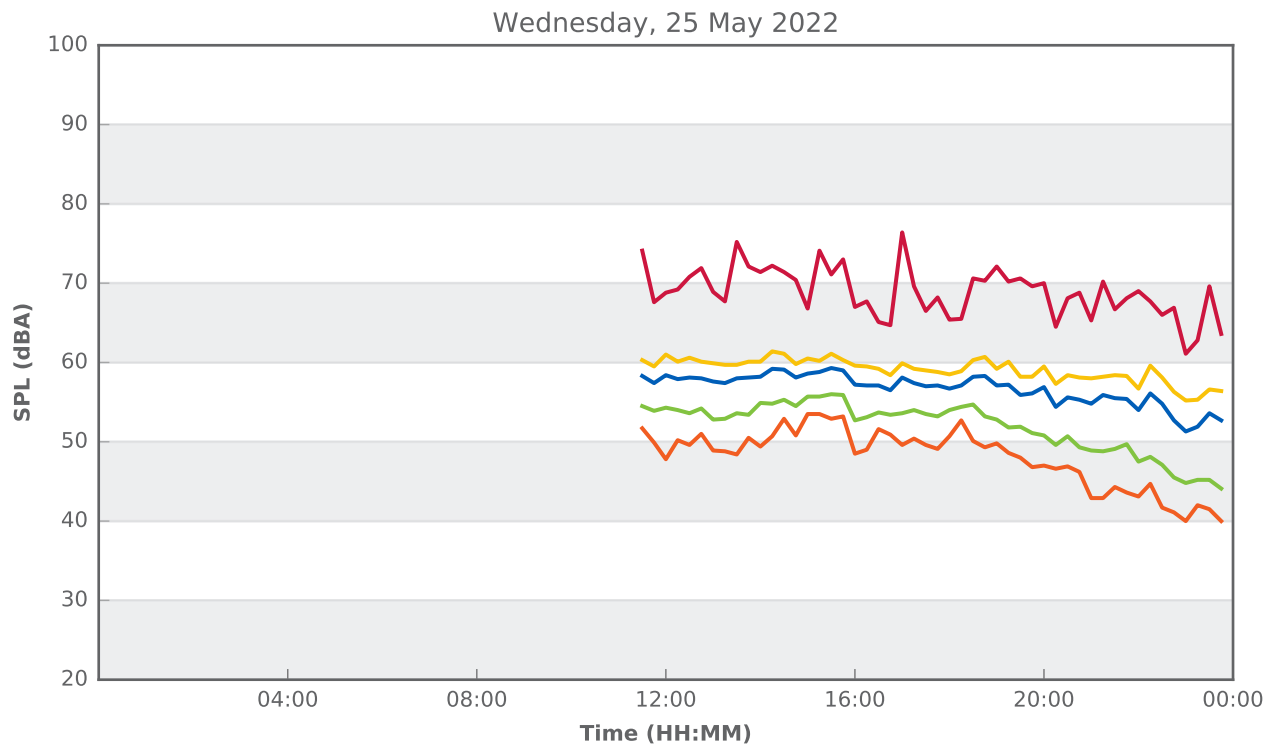




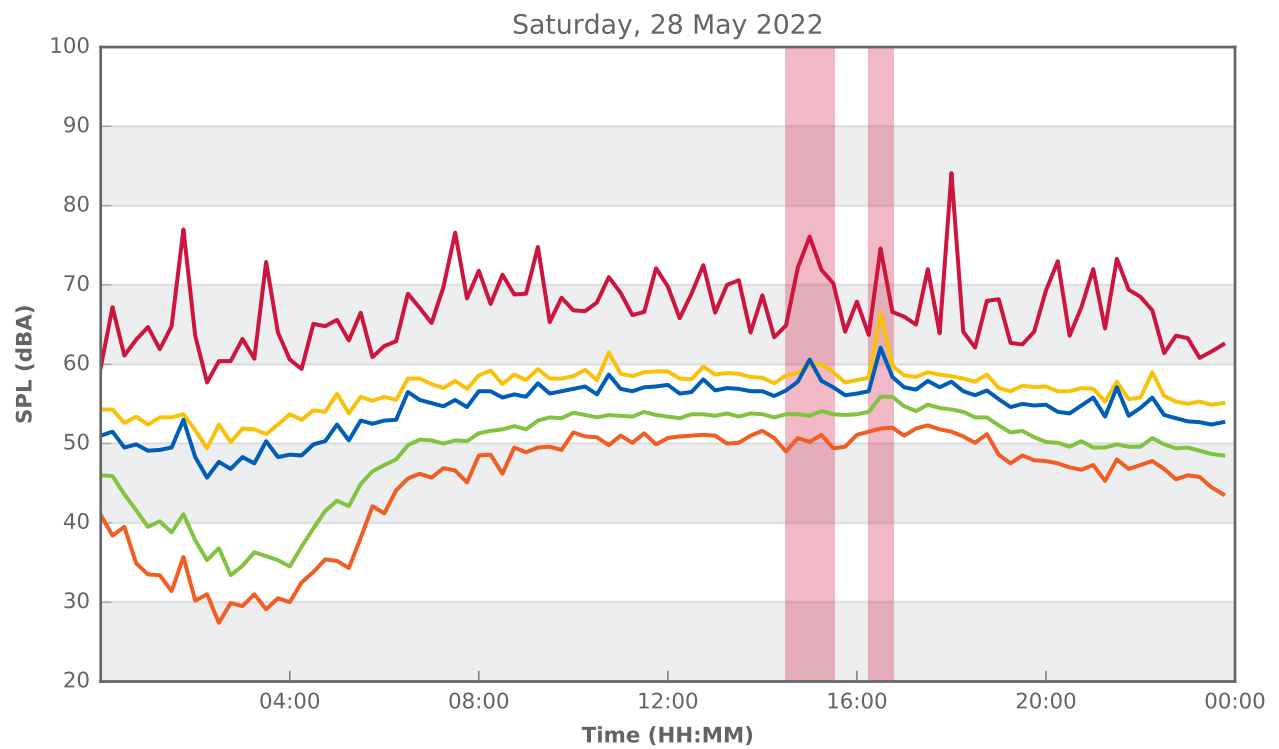
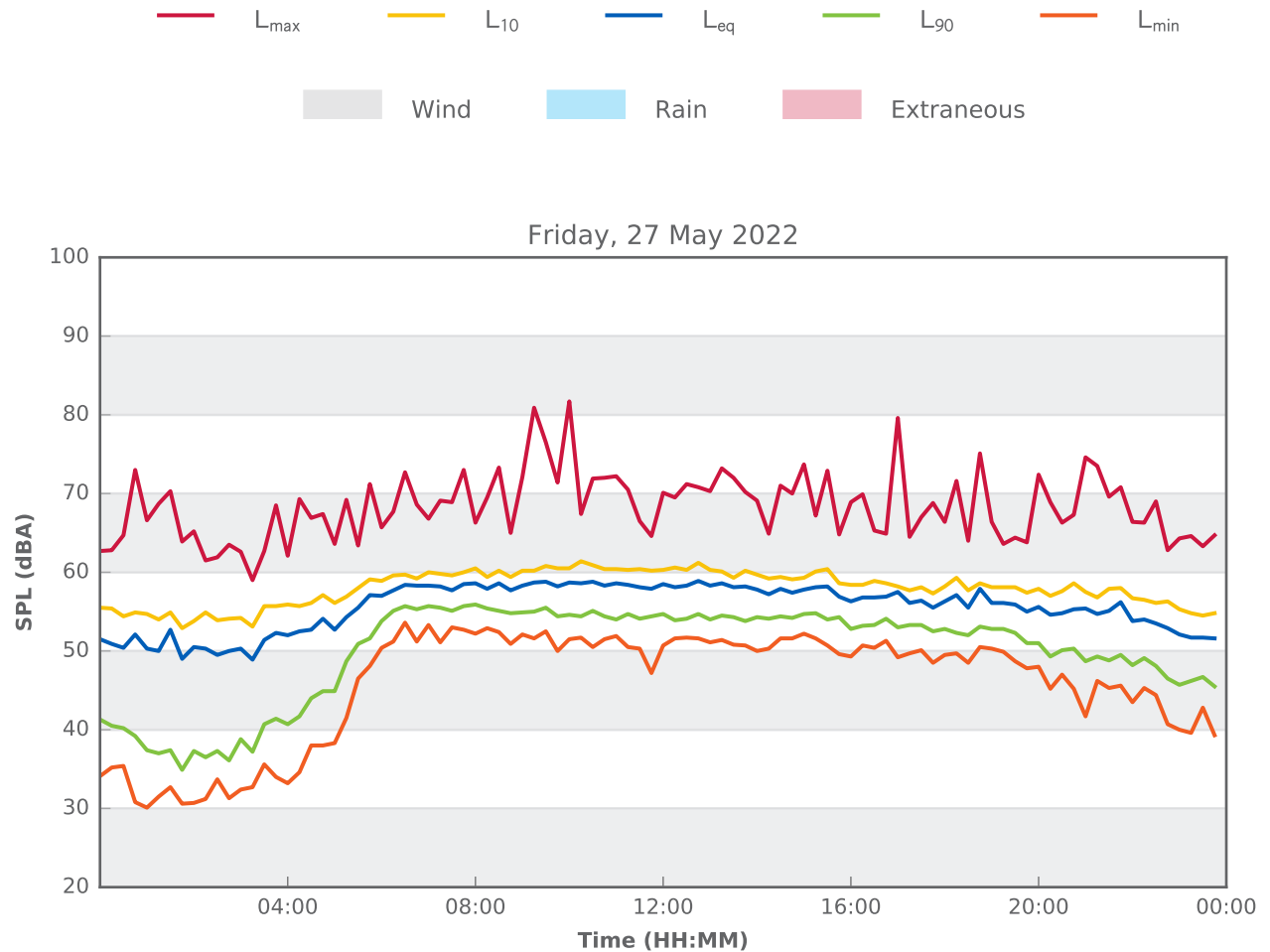
# NCA-11B-T11 - 66 Carmen Drive, Carlingford



# NCA-13-T12 - 122 Barclay Road, North Rocks

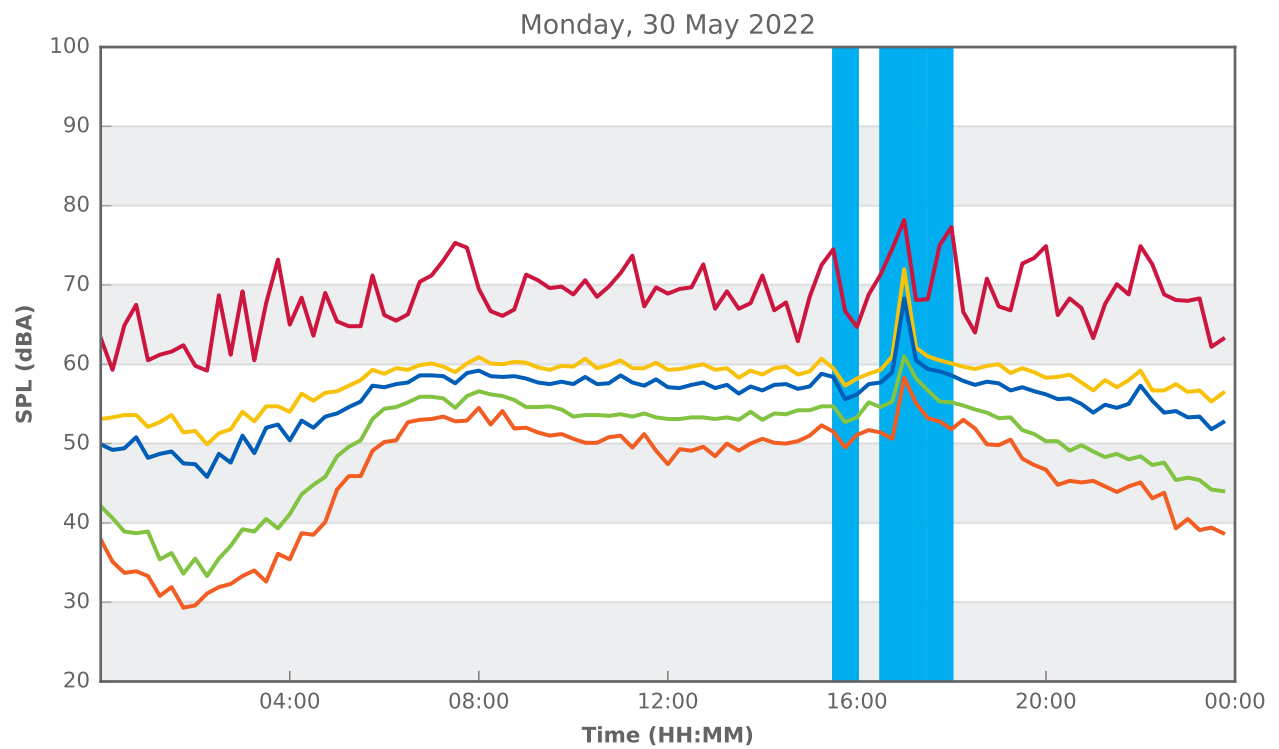
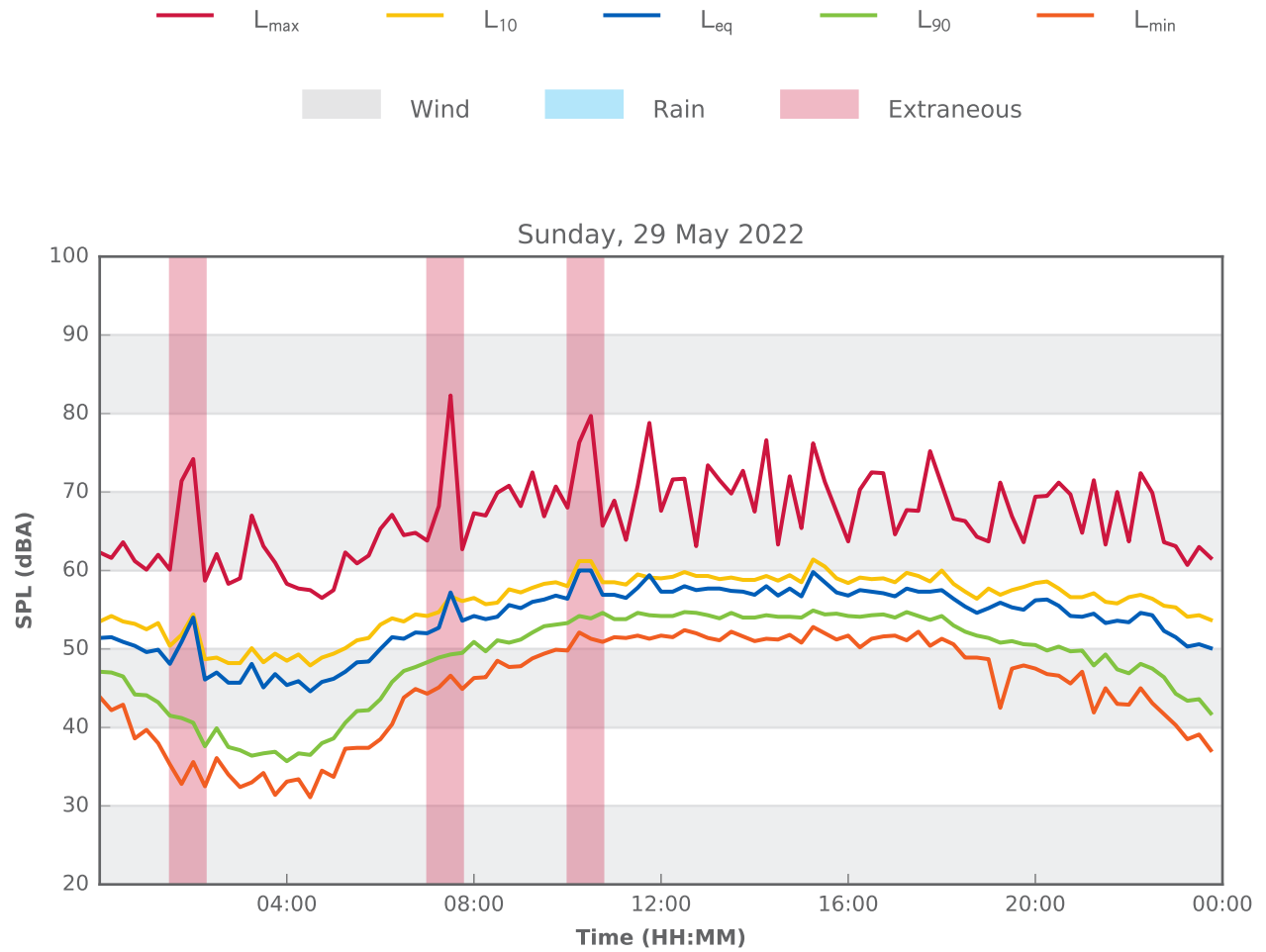


# NCA-13-T12 - 122 Barclay Road, North Rocks

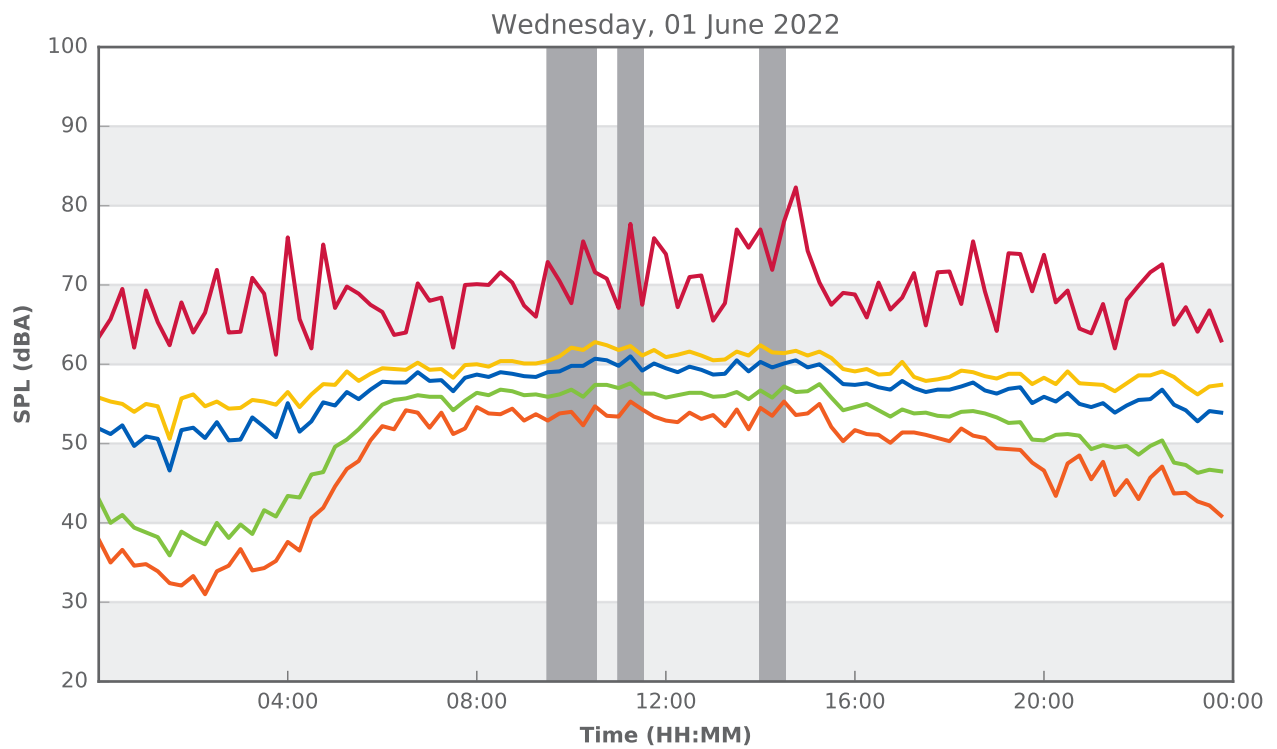
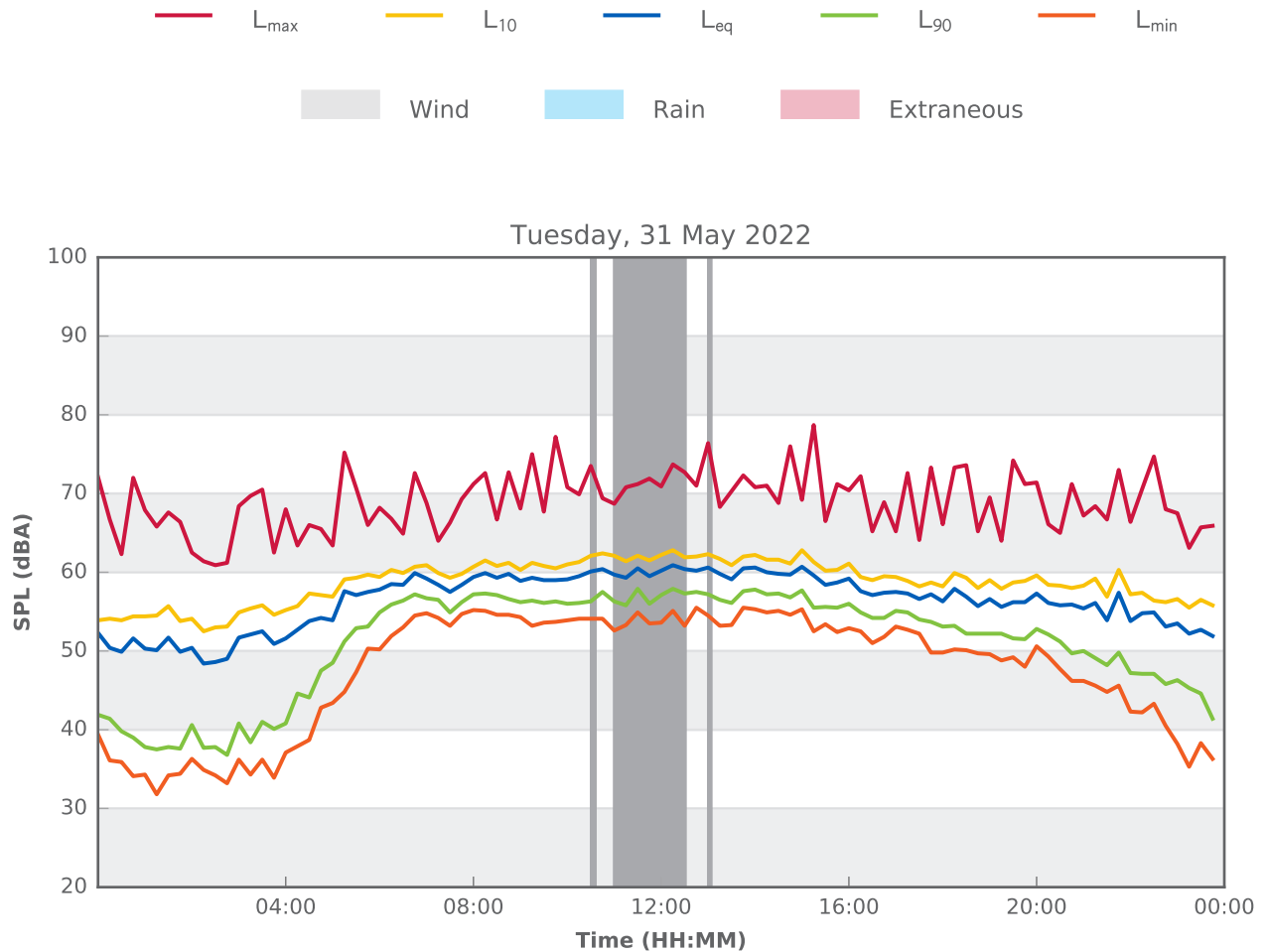




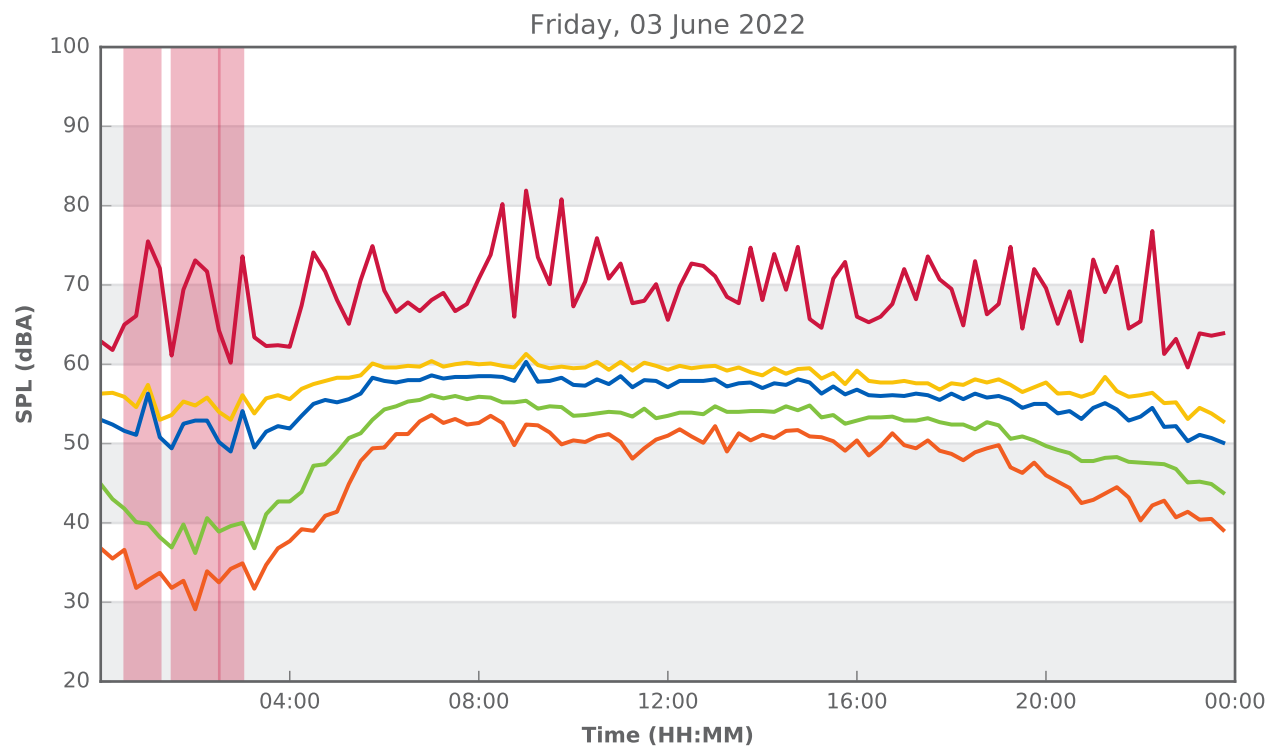
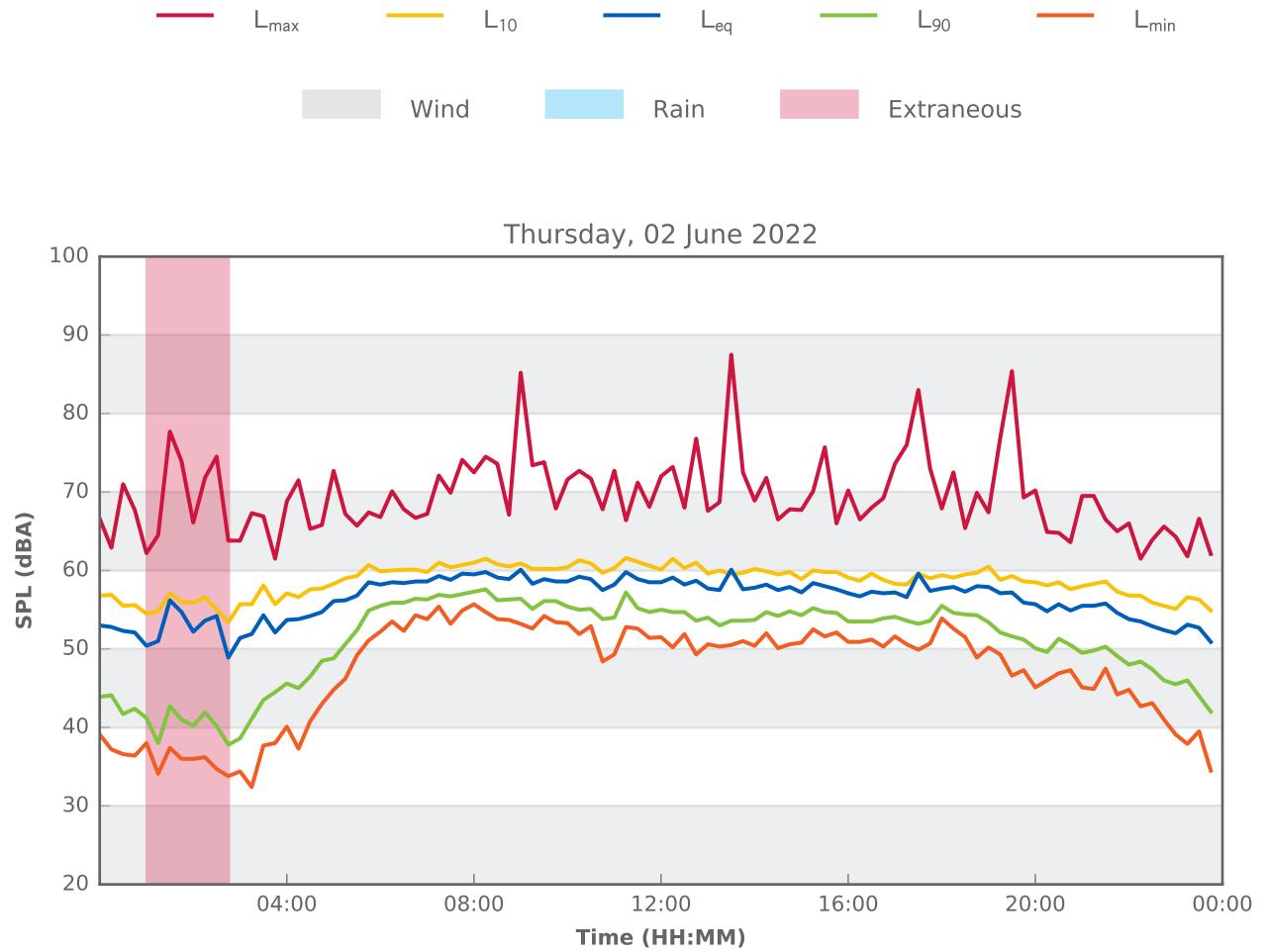
# NCA-13-T12 - 122 Barclay Road, North Rocks



## NCA-13-T12 - 122 Barclay Road, North Rocks

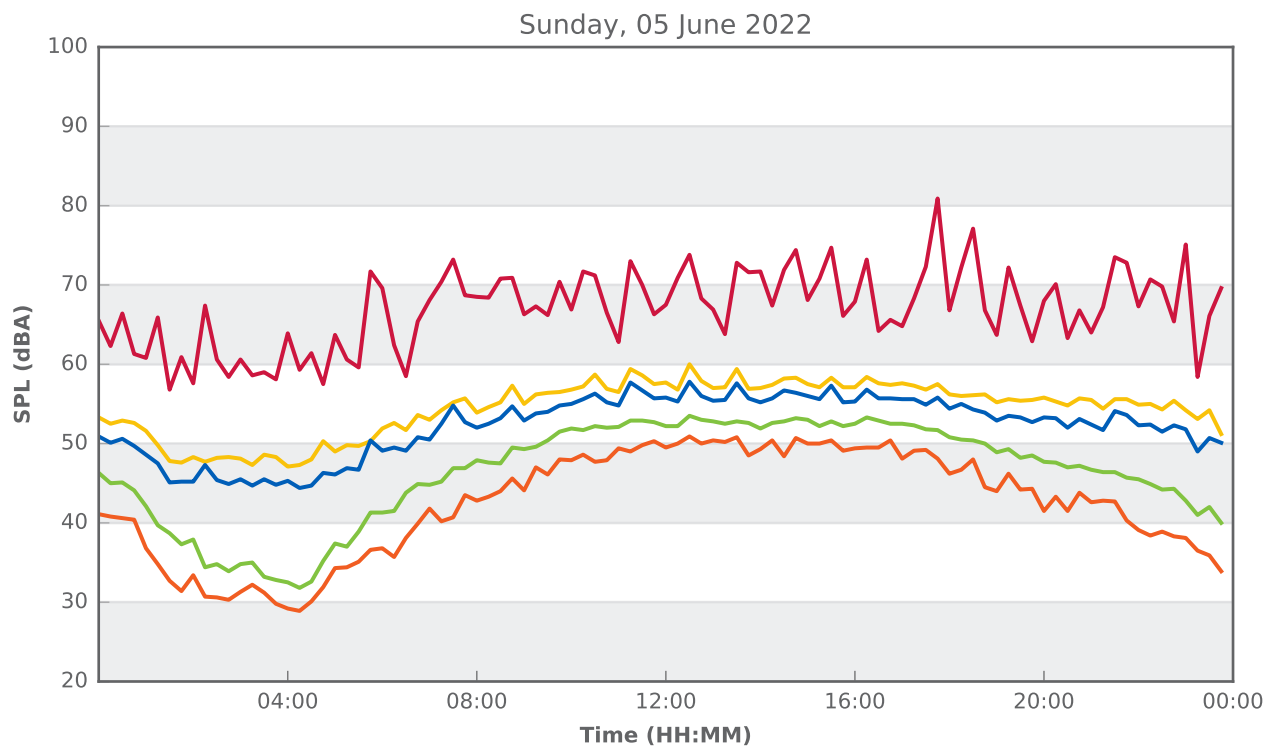
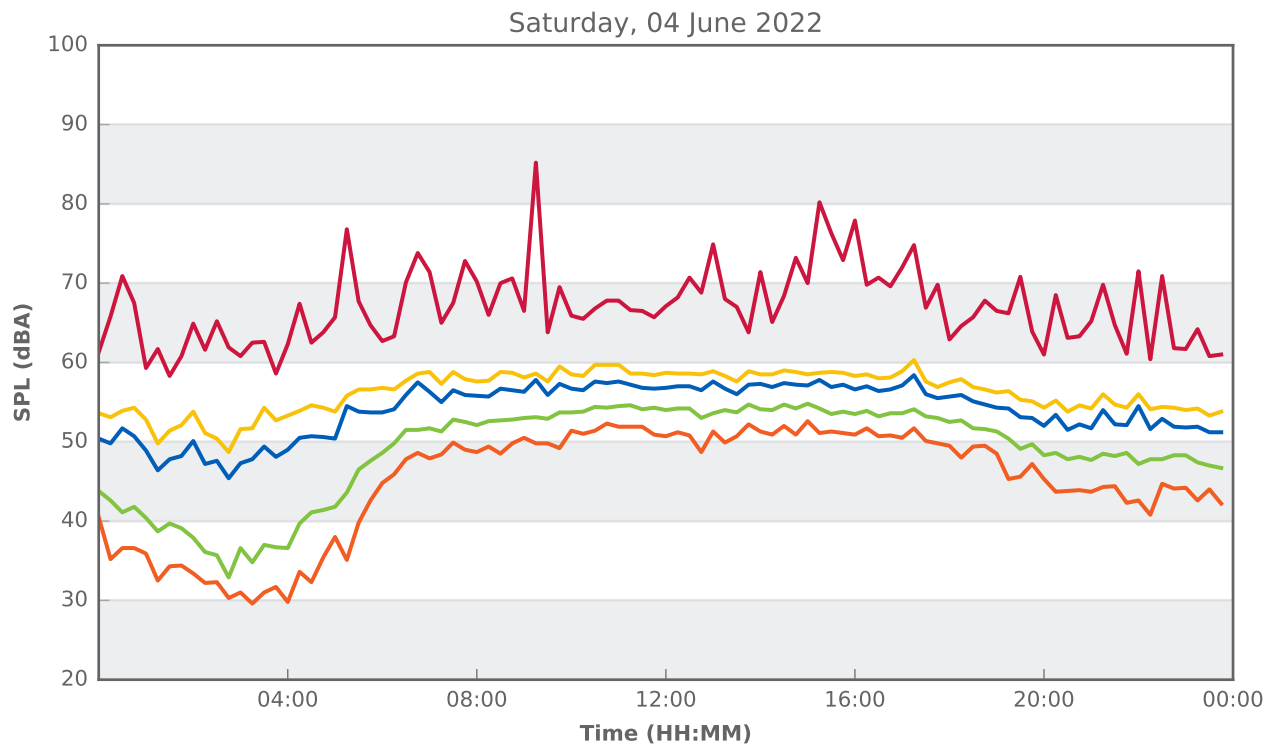


# NCA-13-T12 - 122 Barclay Road, North Rocks

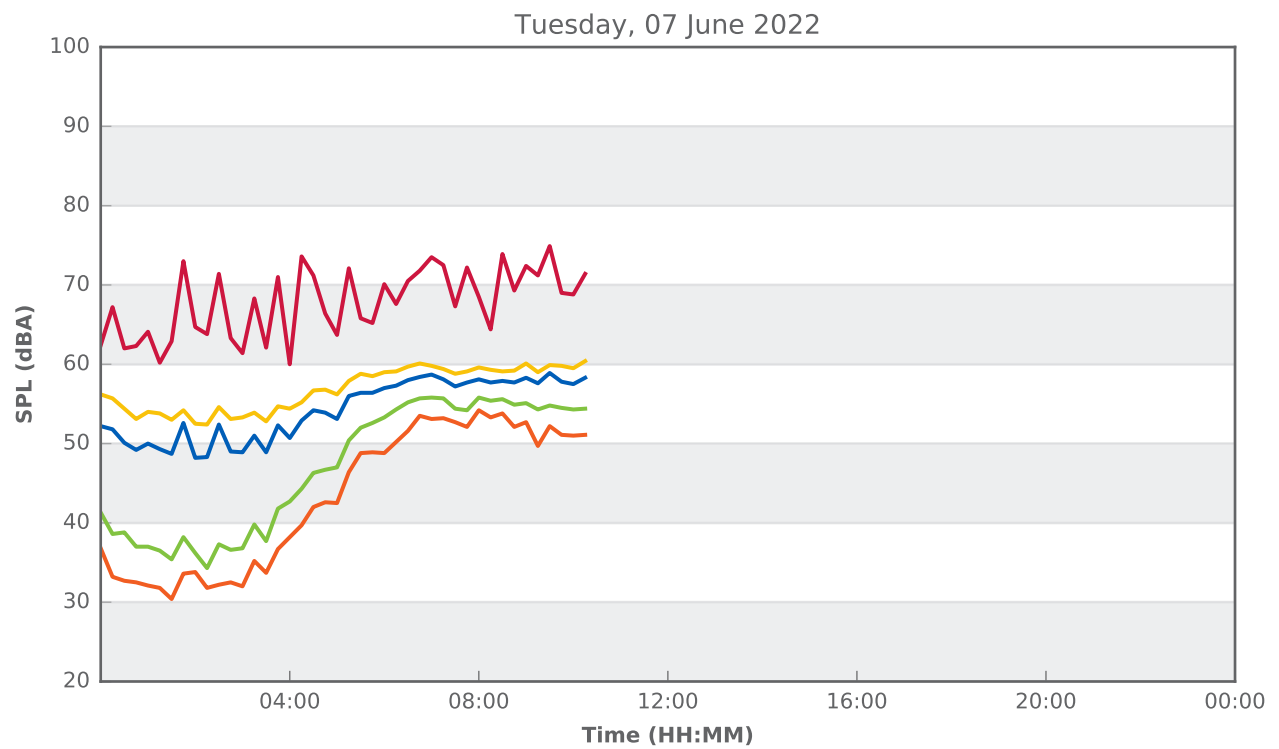
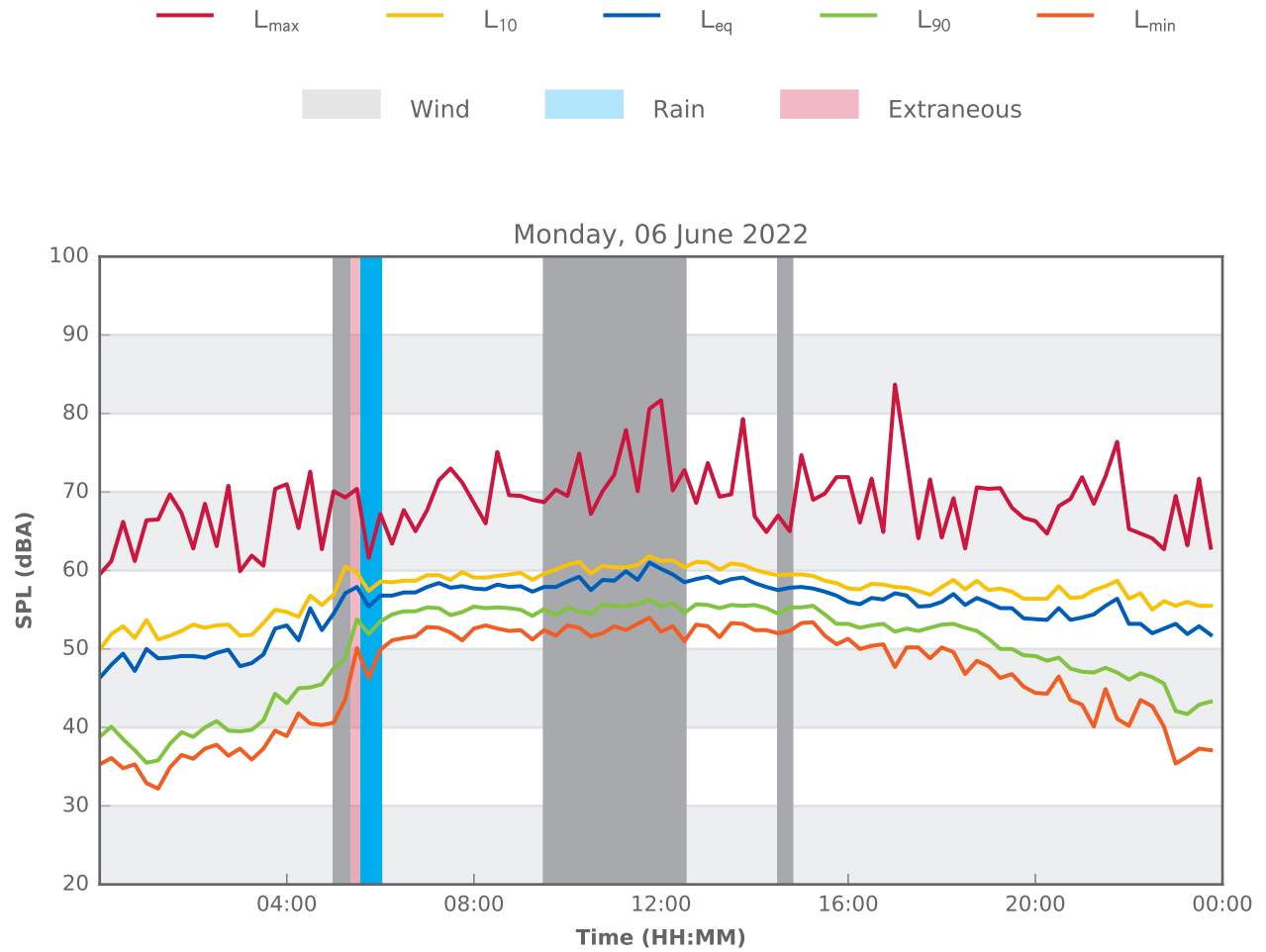




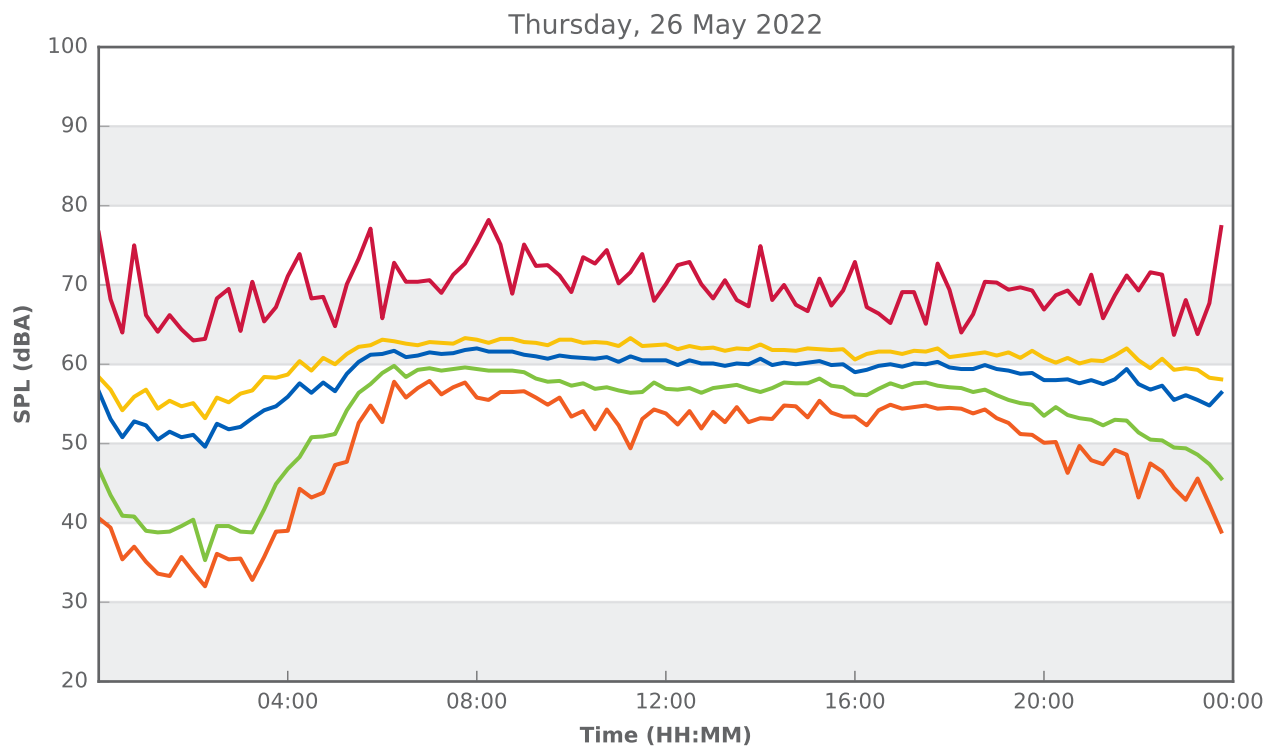
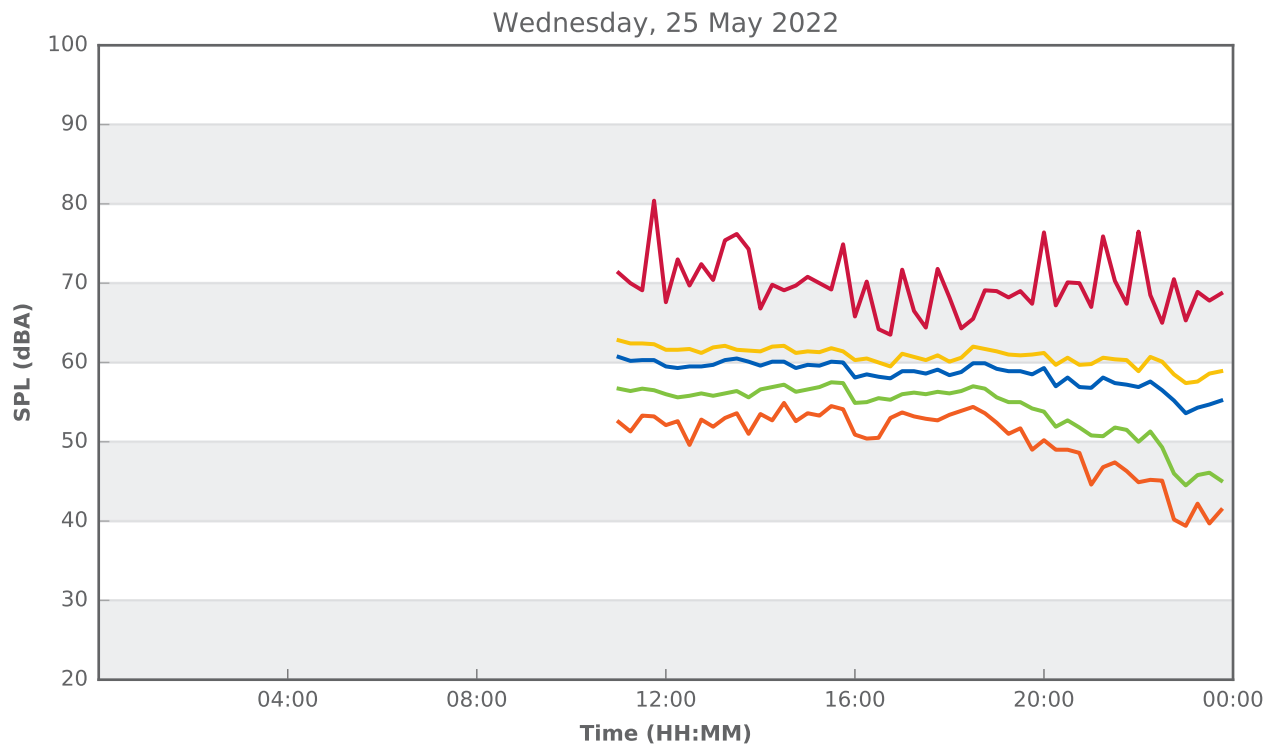
# NCA-13-T12 - 122 Barclay Road, North Rocks



# NCA-13-T12 - 122 Barclay Road, North Rocks

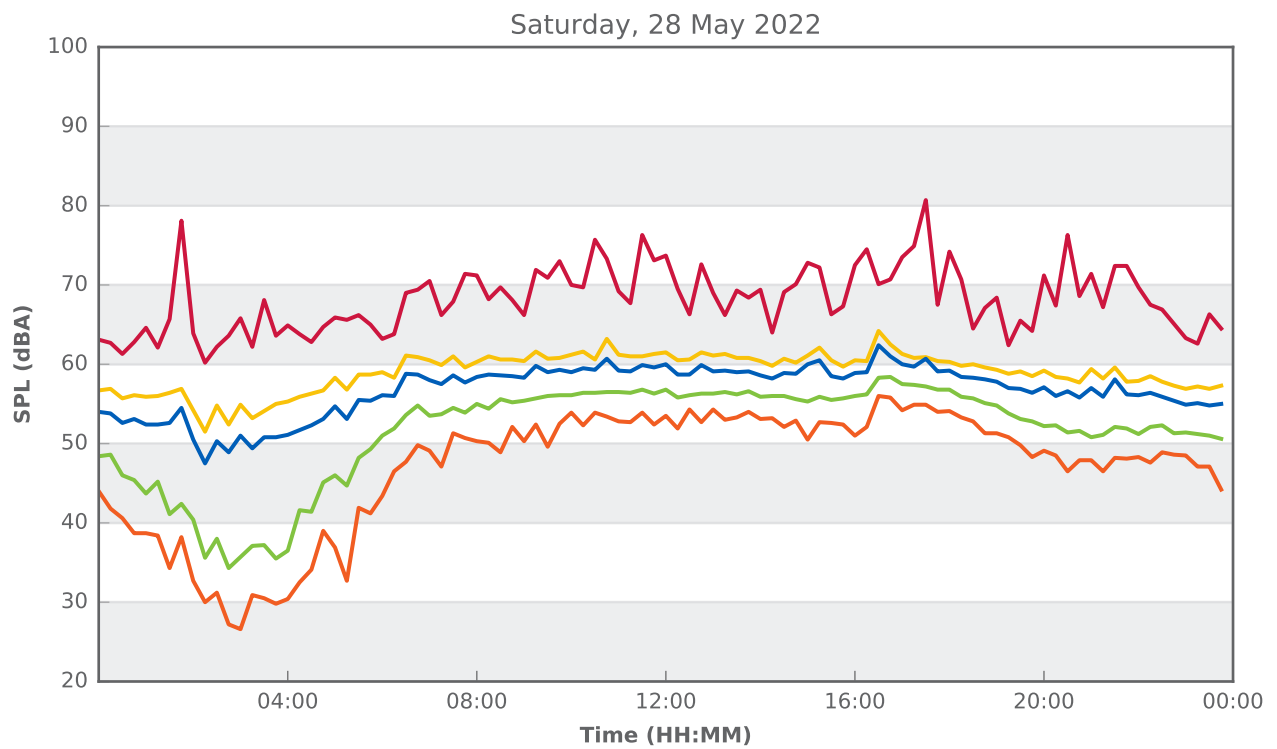
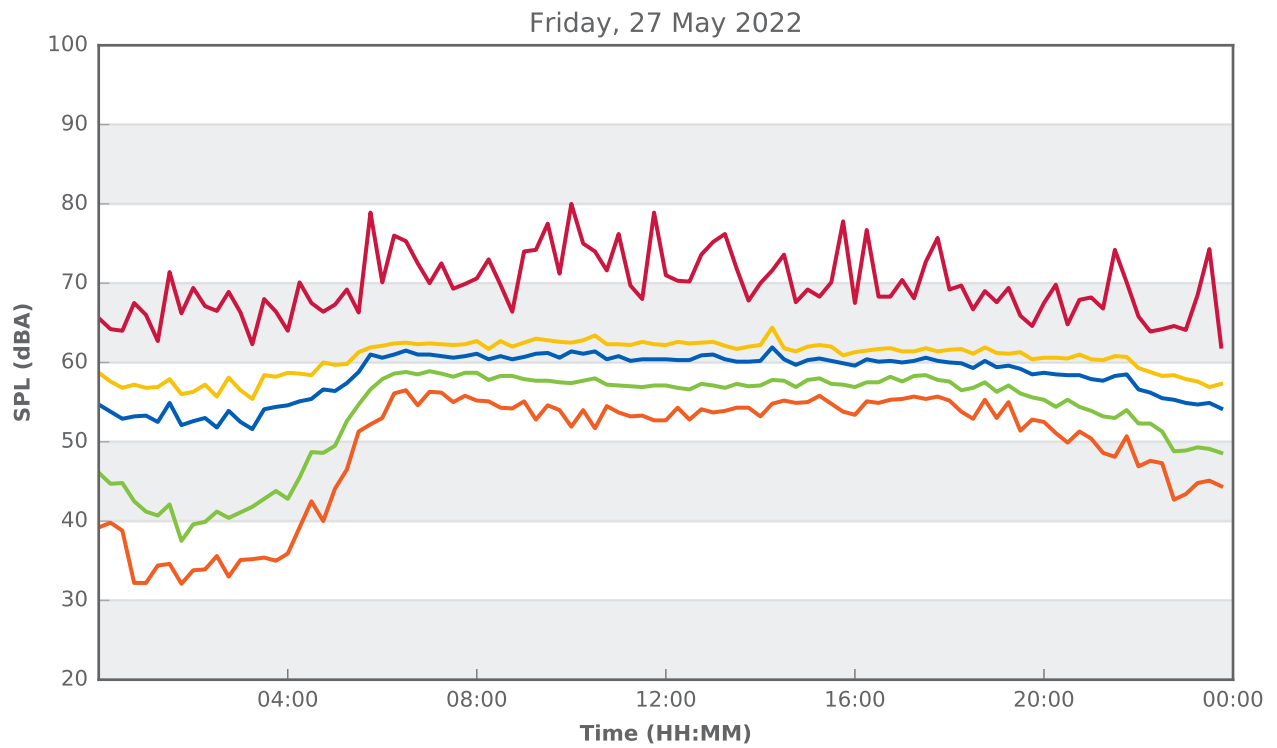
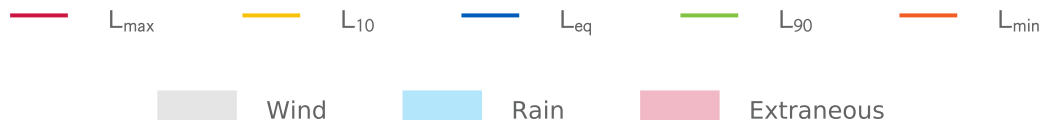


# NCA-14-T13 - 25 Williams Road, North Rocks

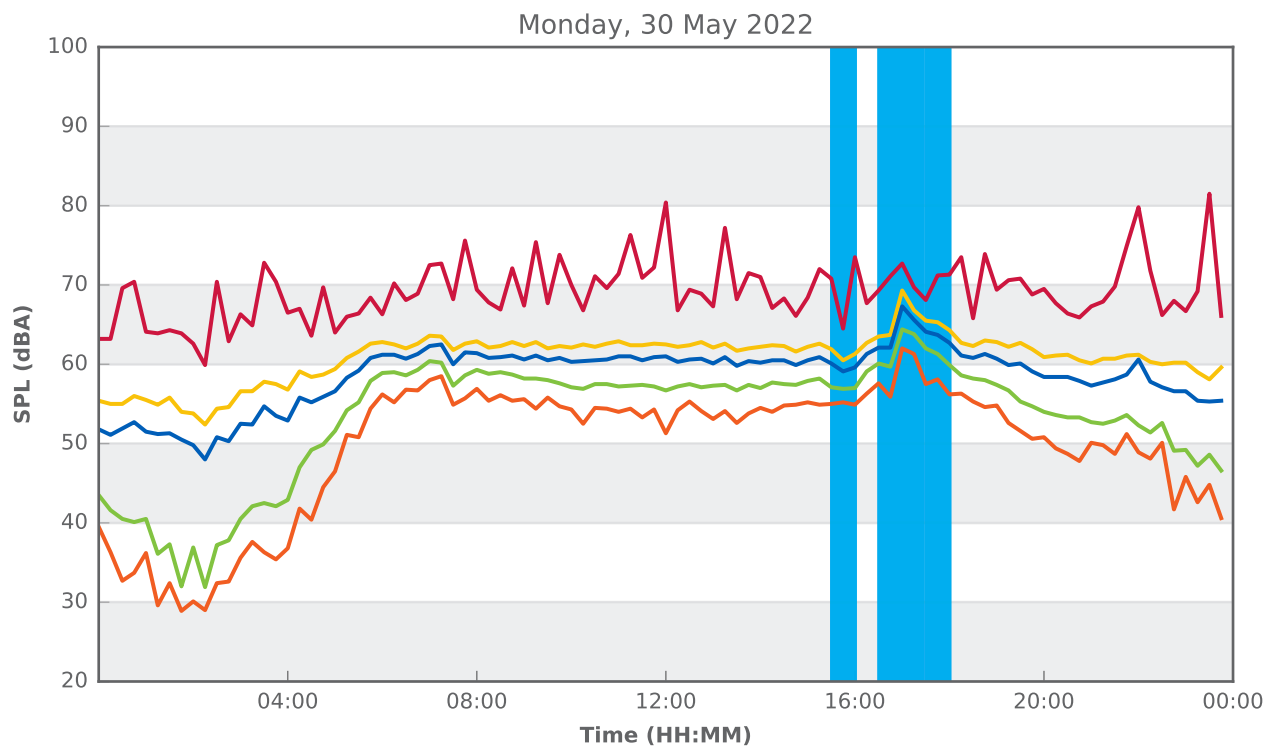
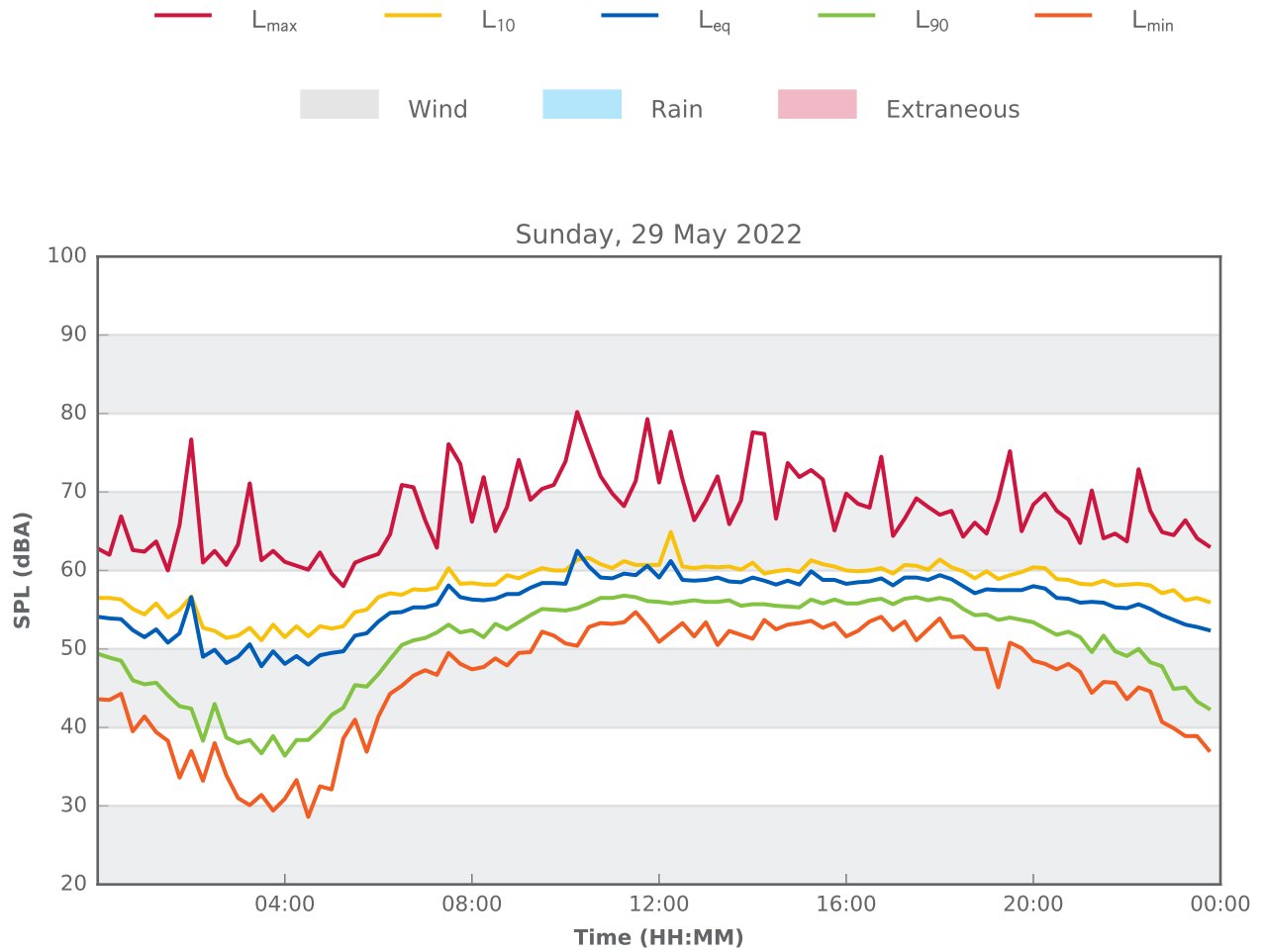




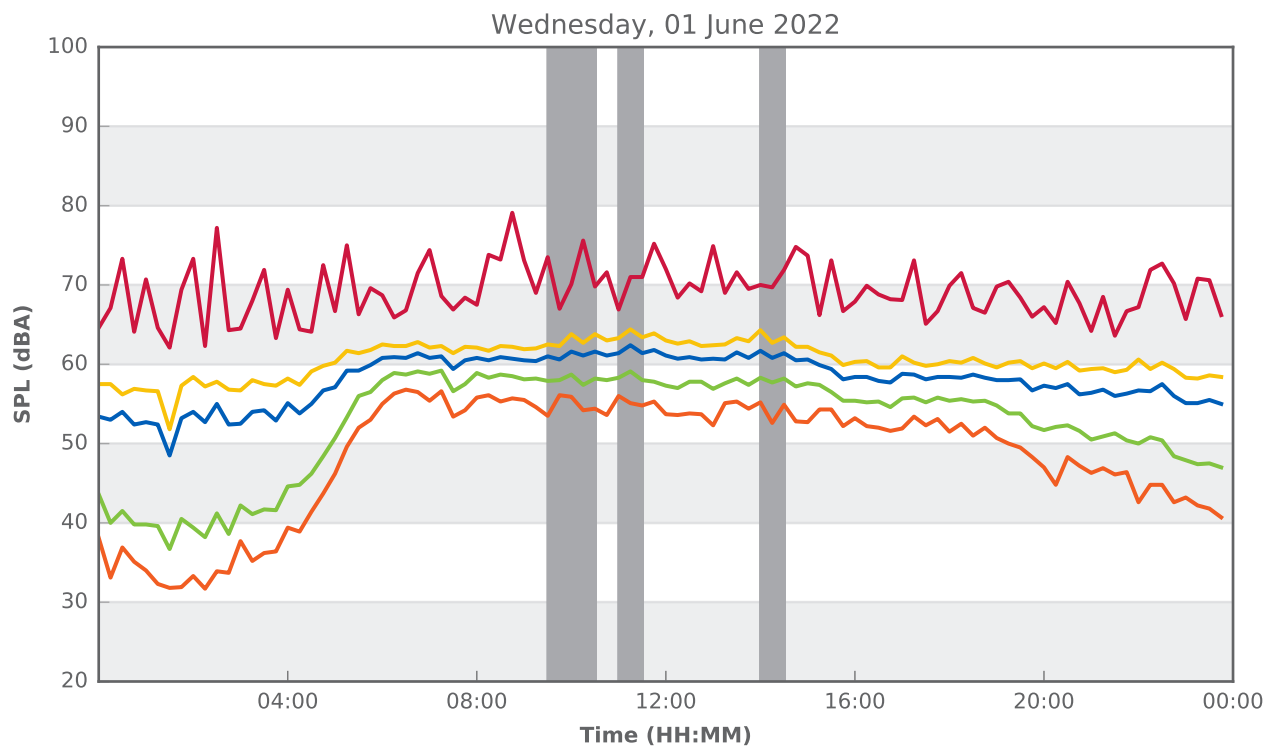
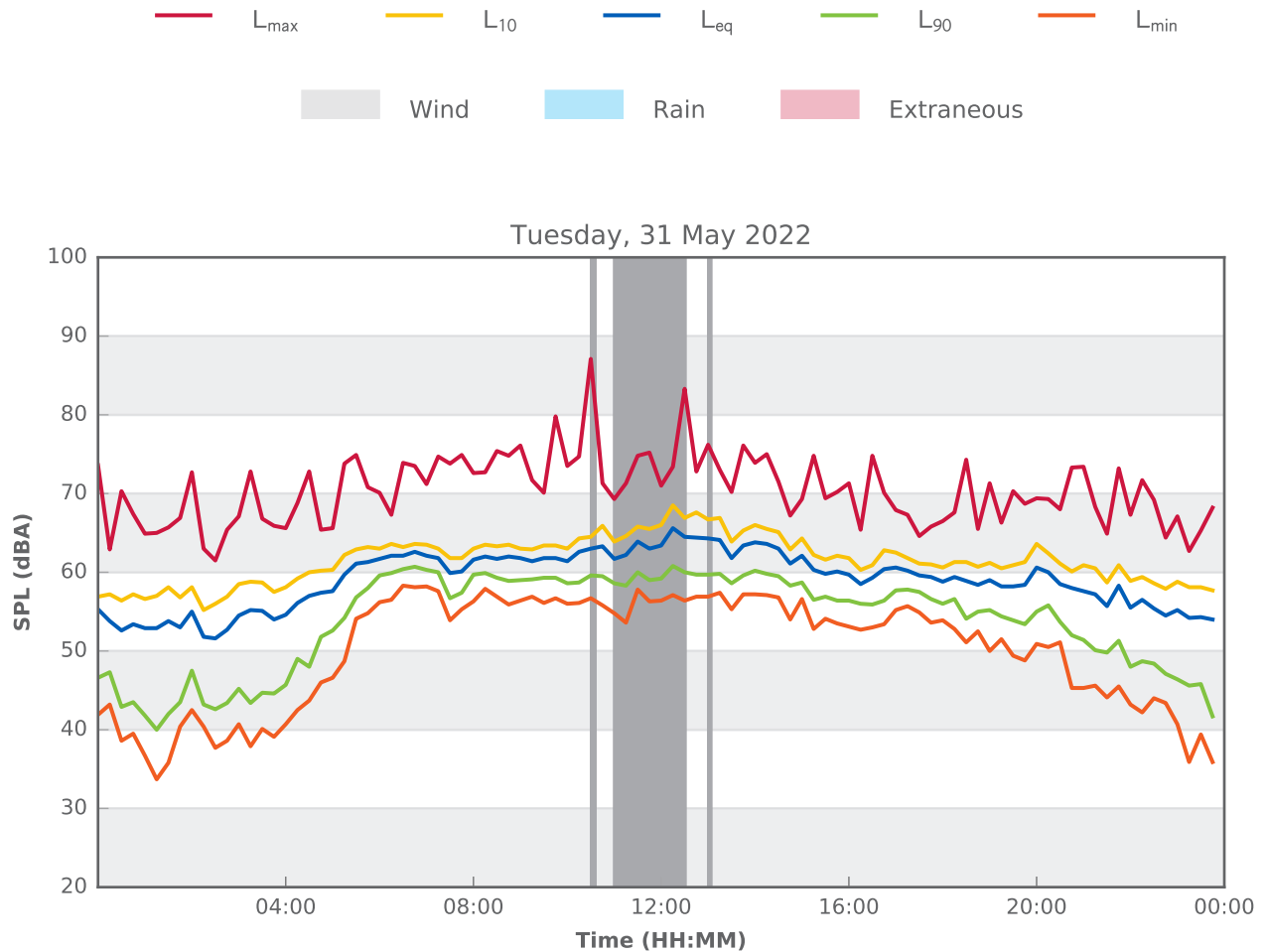
# NCA-14-T13 - 25 Williams Road, North Rocks



# NCA-14-T13 - 25 Williams Road, North Rocks

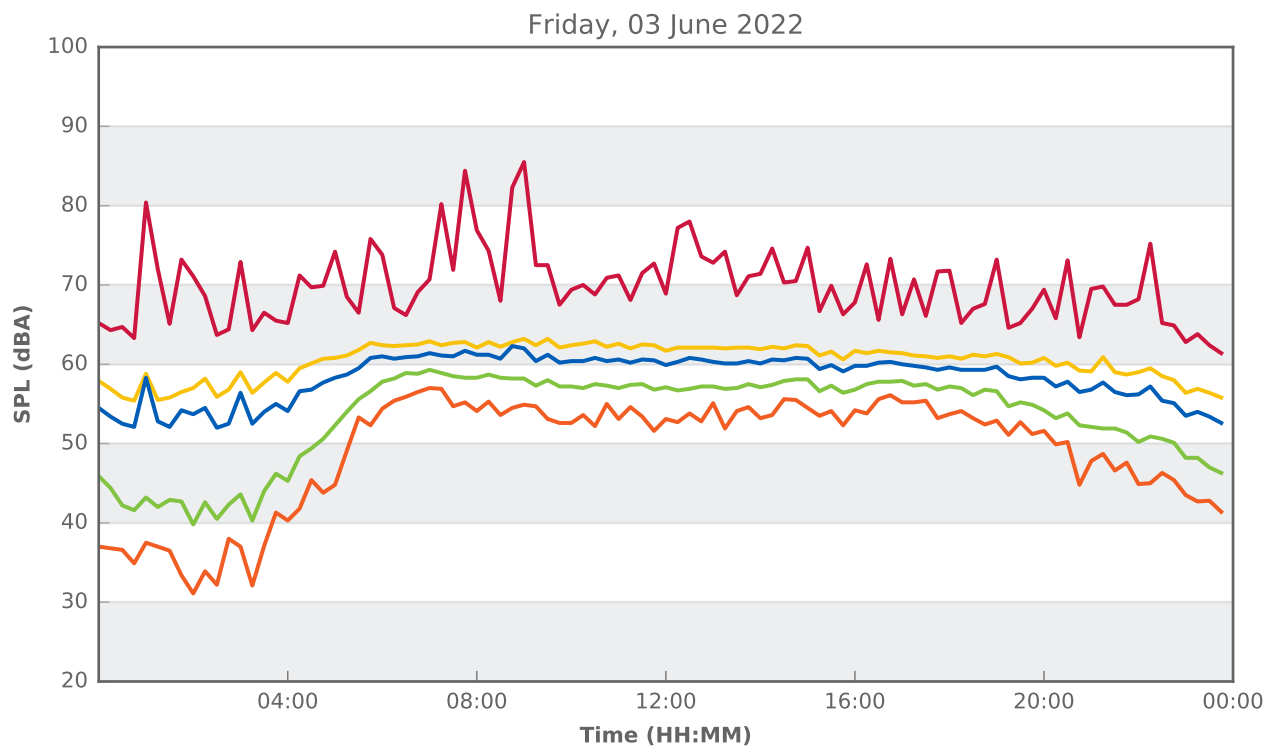
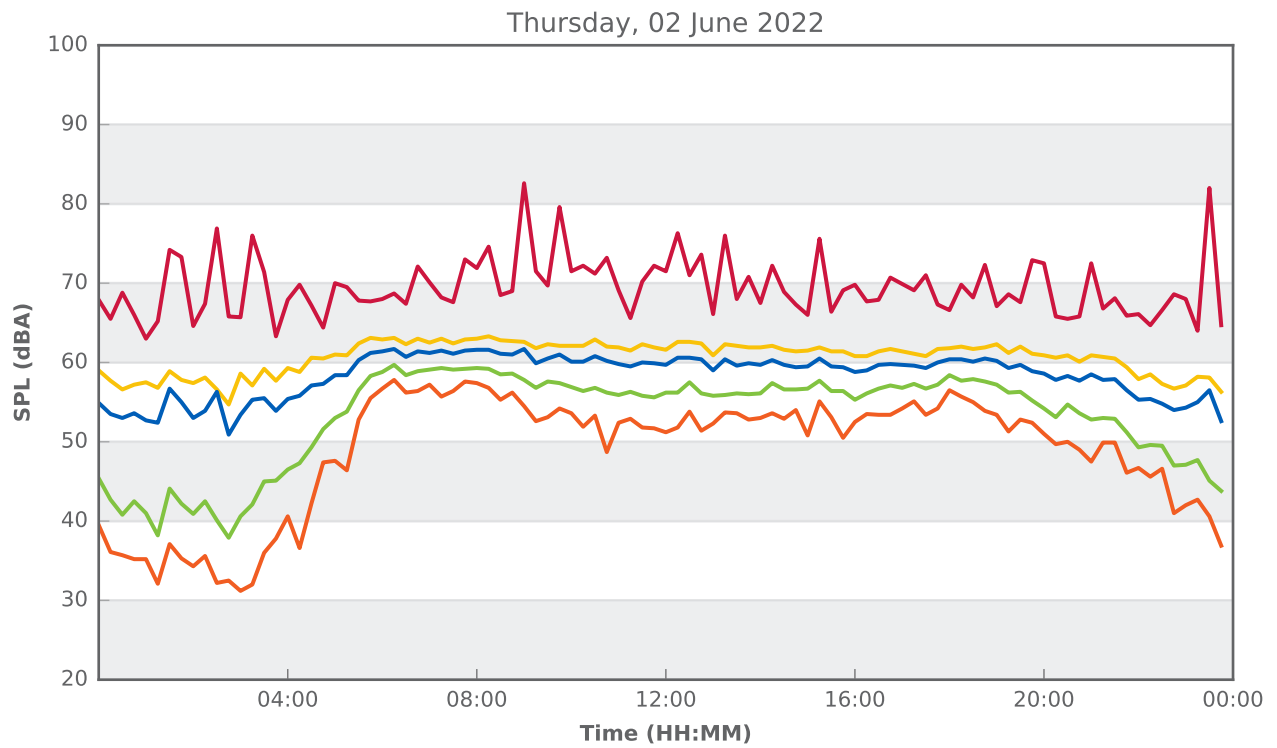
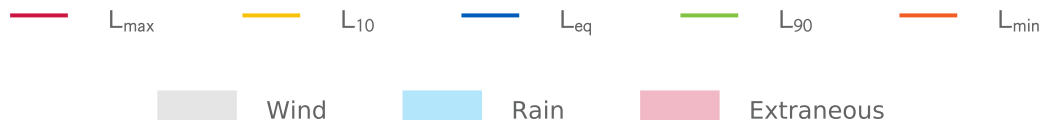


# NCA-14-T13 - 25 Williams Road, North Rocks

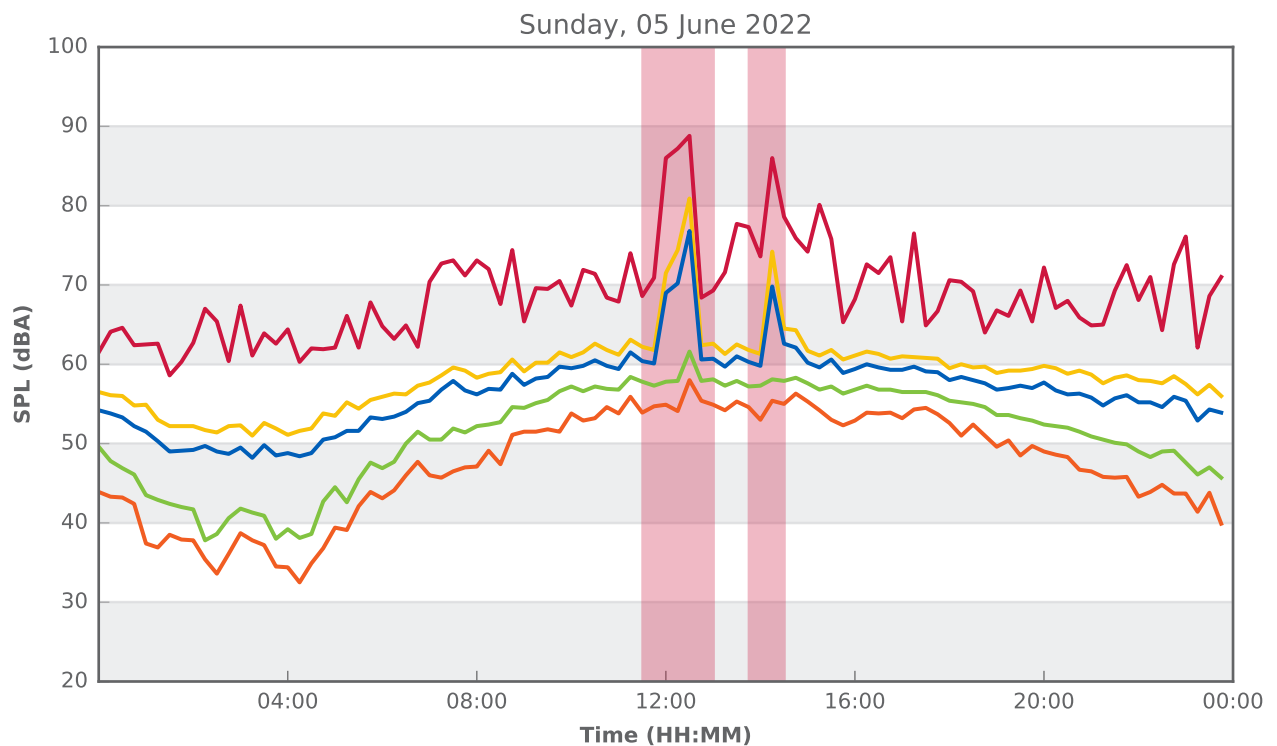
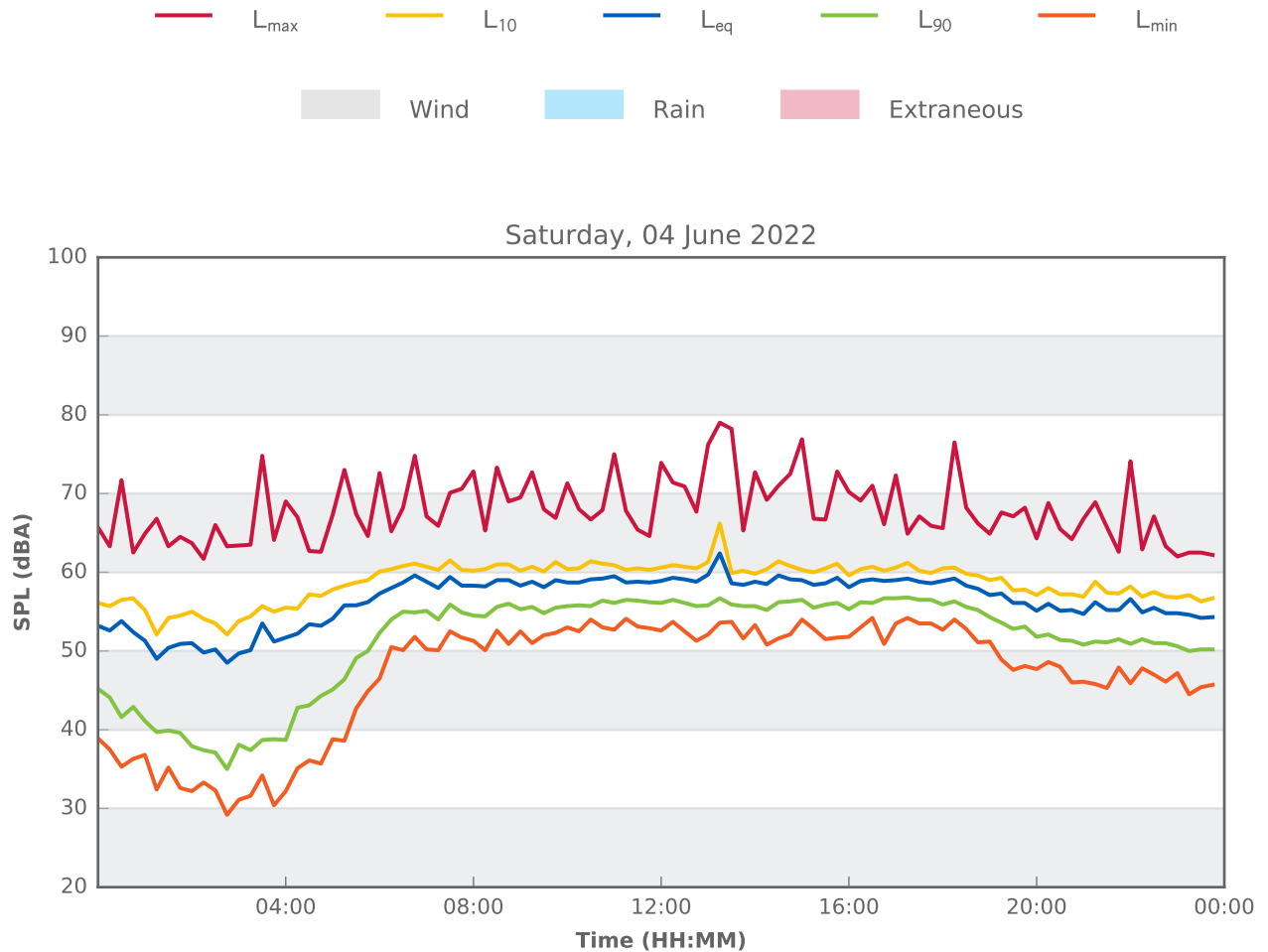




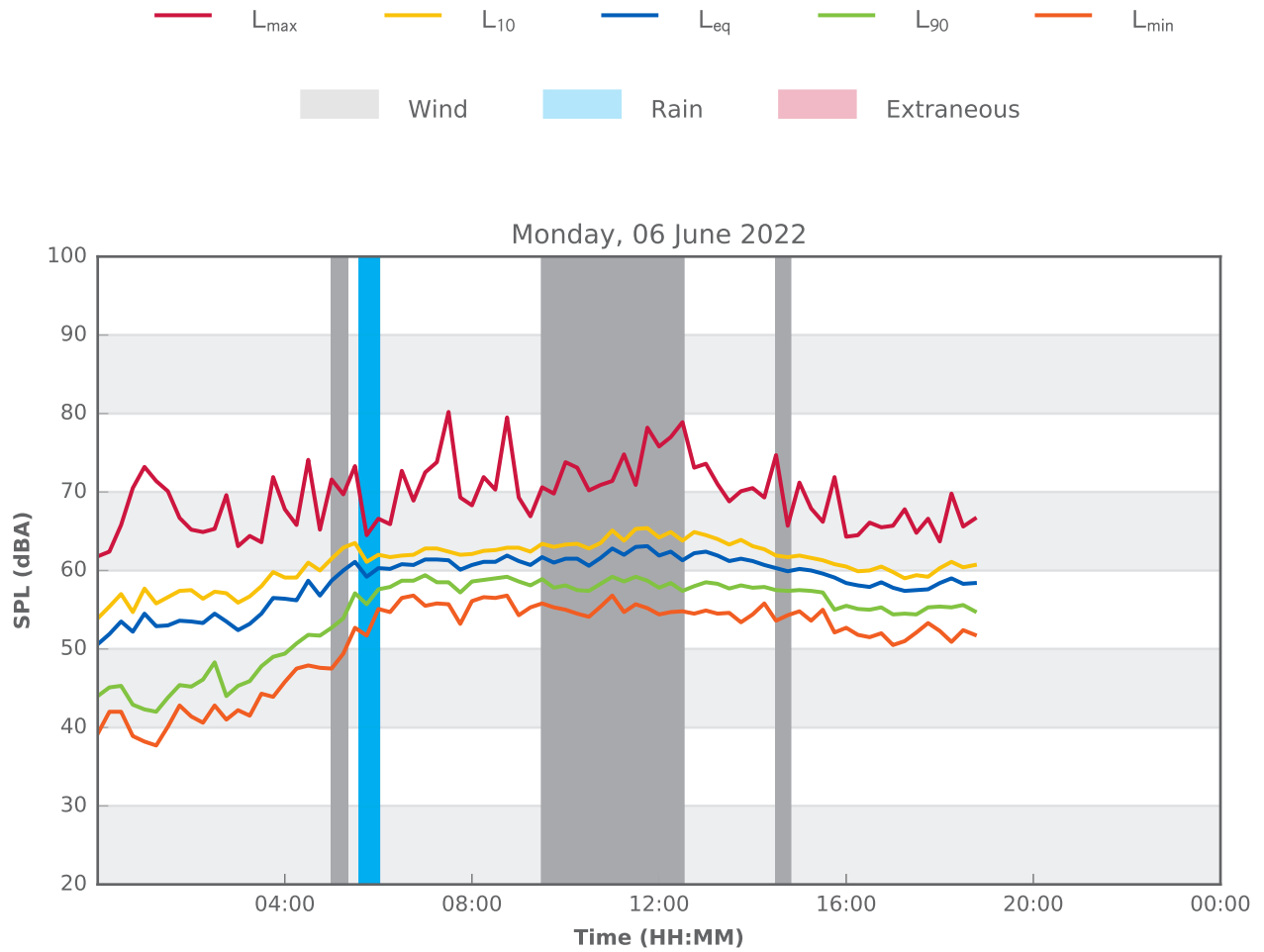
# NCA-14-T13 - 25 Williams Road, North Rocks



# NCA-14-T13 - 25 Williams Road, North Rocks



# NCA-14-T13 - 25 Williams Road, North Rocks





The background features a large, light beige curved shape on the right side, and a blue curved shape on the left side that overlaps the beige one. The text is centered within the beige area.

# APPENDIX D

**SPOT CHECKS OF AS BUILT BARRIERS AGAINST FOR  
CONSTRUCTION BARRIERS**

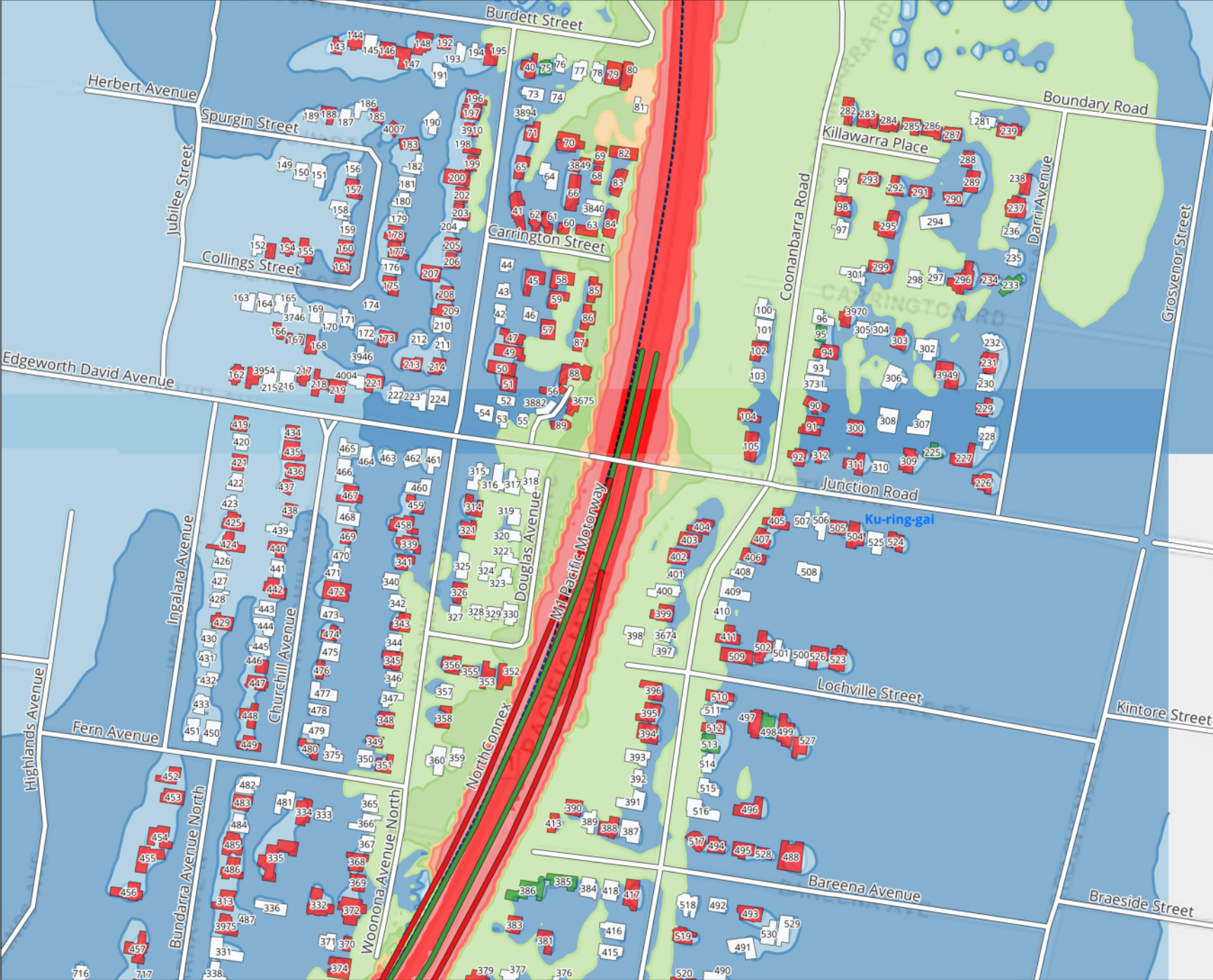
Noise Wall ID	Drawing Reference	Spot checks
Existing	Various	No height modifications to existing barriers were noted
<b>NorthConnex Northern</b>		
NW-N-110-02	NCX-ASJ-07-1490-SN-DG-0209	No changes noted
NW-N-110-05	NCX-ASJ-07-1491-SN-DG-0203	No changes
NW-N-110-06	NCX-ASJ-07-1491-SN-DG-0201	No changes noted
NW-N-110-07	NCX-ASJ-07-1491-SN-DG-0202	No changes noted
NW-N-120-01	NCX-ASJ-07-1491-SN-DG-0205	No changes noted
NW-N-120-02	NCX-ASJ-07-1491-SN-DG-0209	No changes noted
NW-N-1M0-01	NCX-ASJ-07-1491-SN-DG-0201	No changes noted
NW-N-1M0-02	NCX-ASJ-07-1490-SN-DG-0203	No changes noted
NW-N-1R0-02	NCX-ASJ-07-1490-SN-DG-0204/205/206/207	No changes noted
<b>NorthConnex Southern</b>		
NW-S-110-03	NCX-ASJ-02-1240-SN-DG-0204	No changes noted
NW-S-110-04	NCX-ASJ-02-1240-SN-DG-0206/0207/0208	No changes noted
NW-S-110-05	NCX-ASJ-02-1240-SN-DG-0209	No changes noted
NW-S-120-02	NCX-ASJ-07-1491-SN-DG-0201/ 202	No changes noted
NW-S-120-03	NCX-ASJ-02-1241-SN-DG-0204	No changes noted
NW-S-120-04	NCX-ASJ-02-1241-SN-DG-0201	No changes noted
NW-S-120-05	NCX-ASJ-02-1241-SN-DG-0208	No changes noted
NW-S-120-06	NCX-ASJ-02-1241-SN-DG-0214	No changes noted

The background features a large, light beige circle on the right side, partially overlapping a solid blue triangle on the left. The text is centered within the beige area.

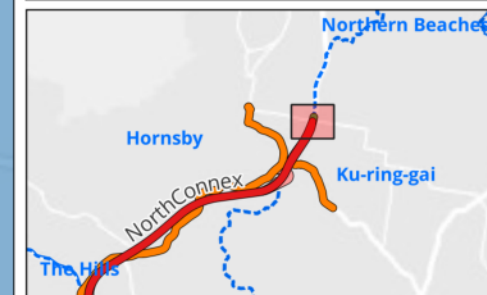
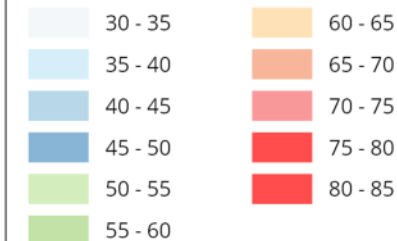
# APPENDIX E

**REVISED PREDICTED NOISE LEVELS BUILD OPTION 2029**





### Noise Level Contours (dBA)



### Legend

- Residential Buildings**
- Single Storey
  - Double Storey
  - Greater Than Double Storey
- Non-residential Buildings**
- Non residential
- Roads**
- M1 Motorway
  - M2 Motorway
  - Motorway ramps
  - Trunk Roads
  - NorthConnex tunnel
  - Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

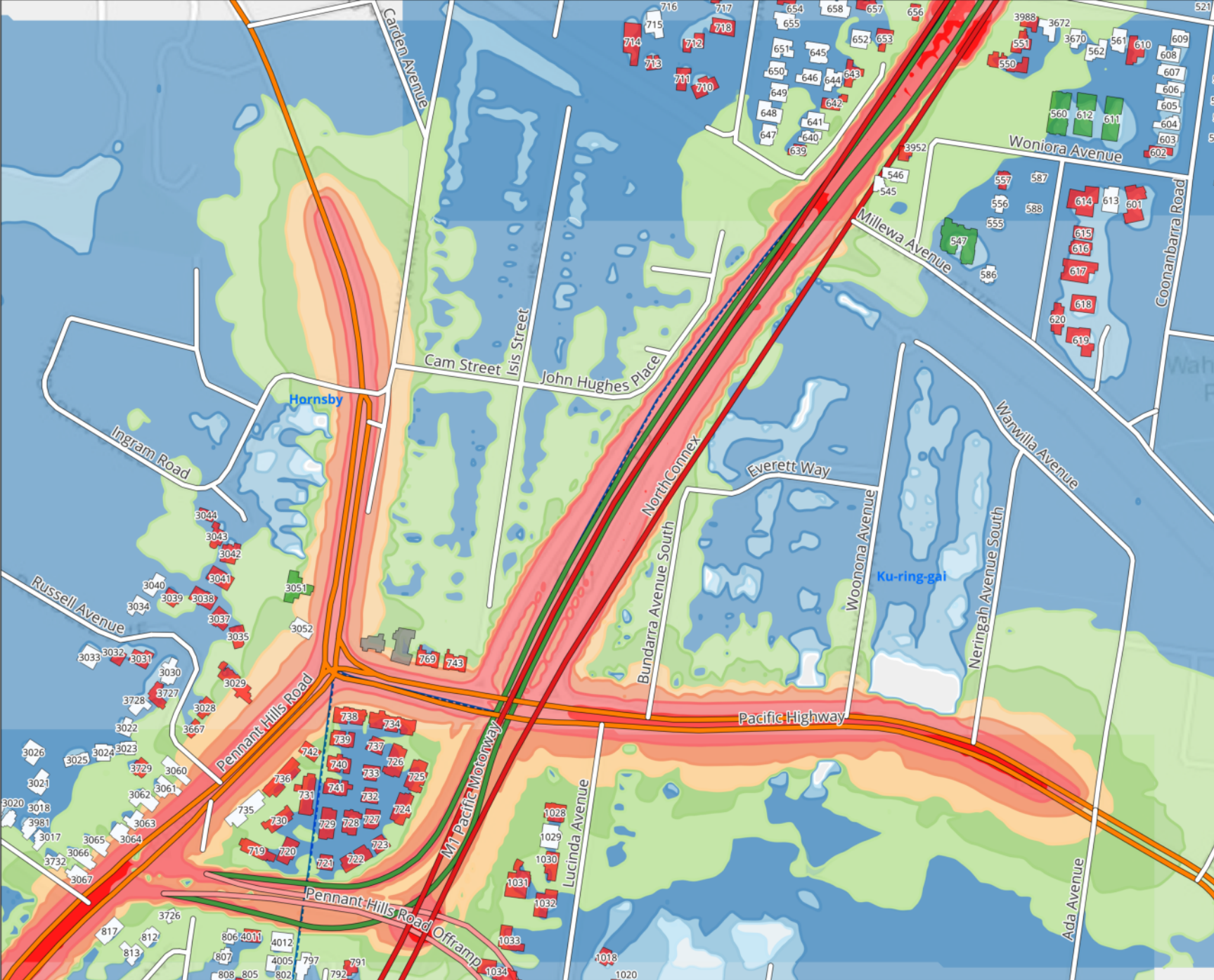
Figure E - 1 of 12

Project #: 2202138

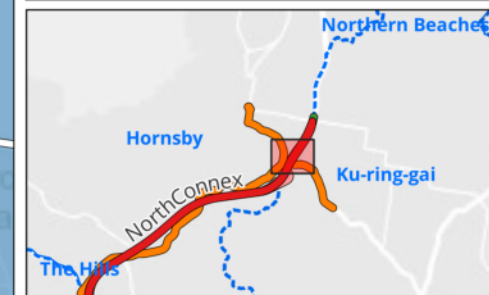
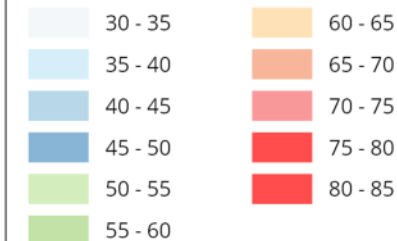
Date Revised: 16 Aug 2022





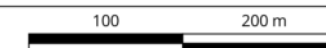


### Noise Level Contours (dBA)



### Legend

- Residential Buildings
- Single Storey
  - Double Storey
  - Greater Than Double Storey
- Non-residential Buildings
- Non residential
- Roads
- M1 Motorway
  - M2 Motorway
  - Motorway ramps
  - Trunk Roads
  - NorthConnex tunnel
  - Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

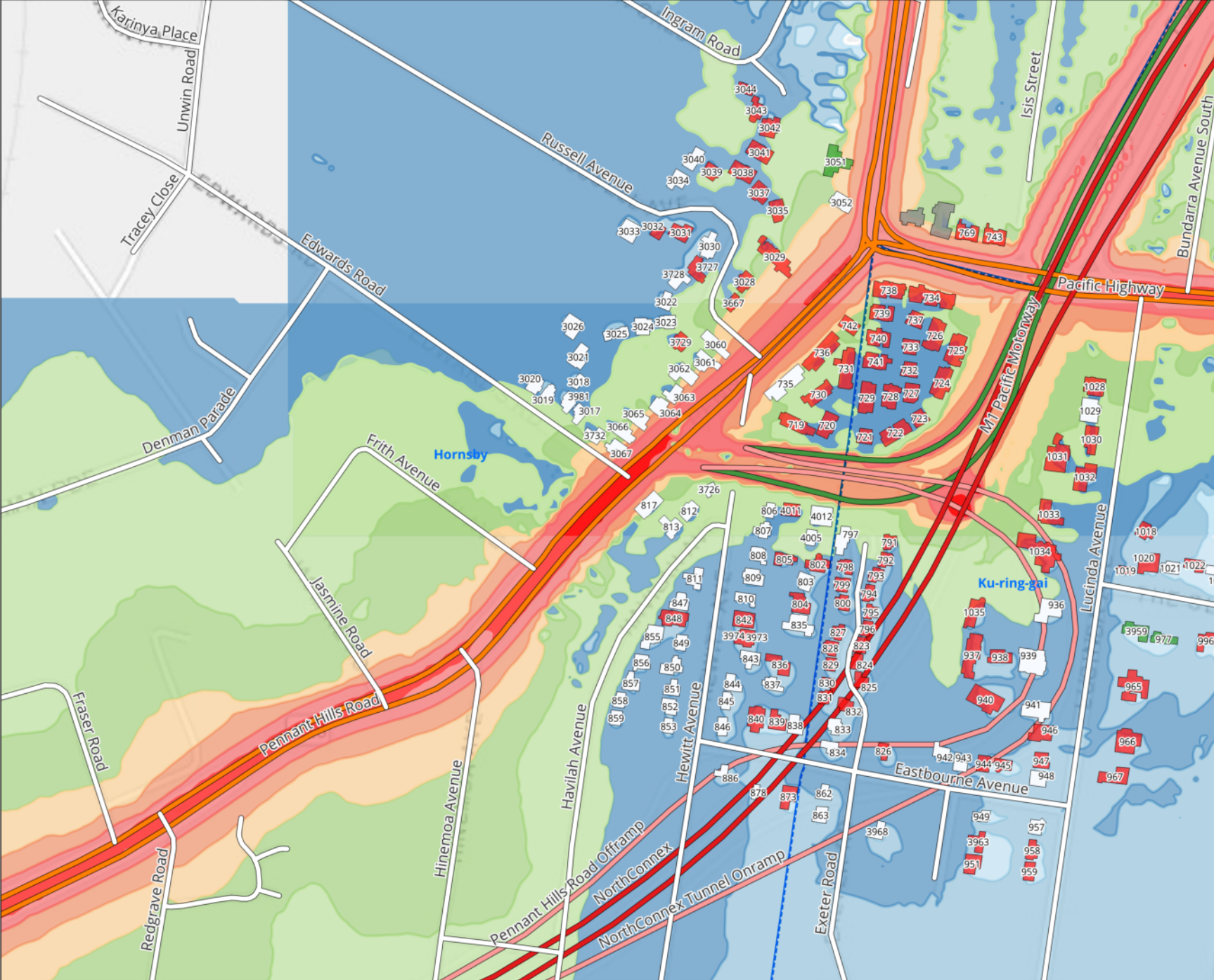
Figure E - 2 of 12

Project #: 2202138

Date Revised: 16 Aug 2022

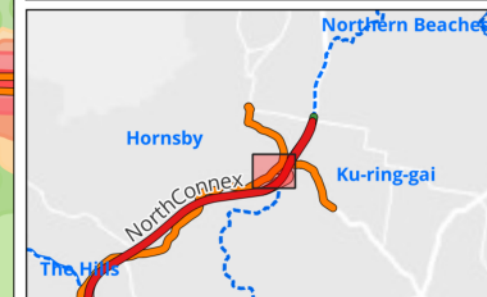






### Noise Level Contours (dBA)

30 - 35	60 - 65
35 - 40	65 - 70
40 - 45	70 - 75
45 - 50	75 - 80
50 - 55	80 - 85
55 - 60	



### Legend

#### Residential Buildings

- Single Storey
- Double Storey
- Greater Than Double Storey

#### Non-residential Buildings

- Non residential

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- NorthConnex tunnel
- Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

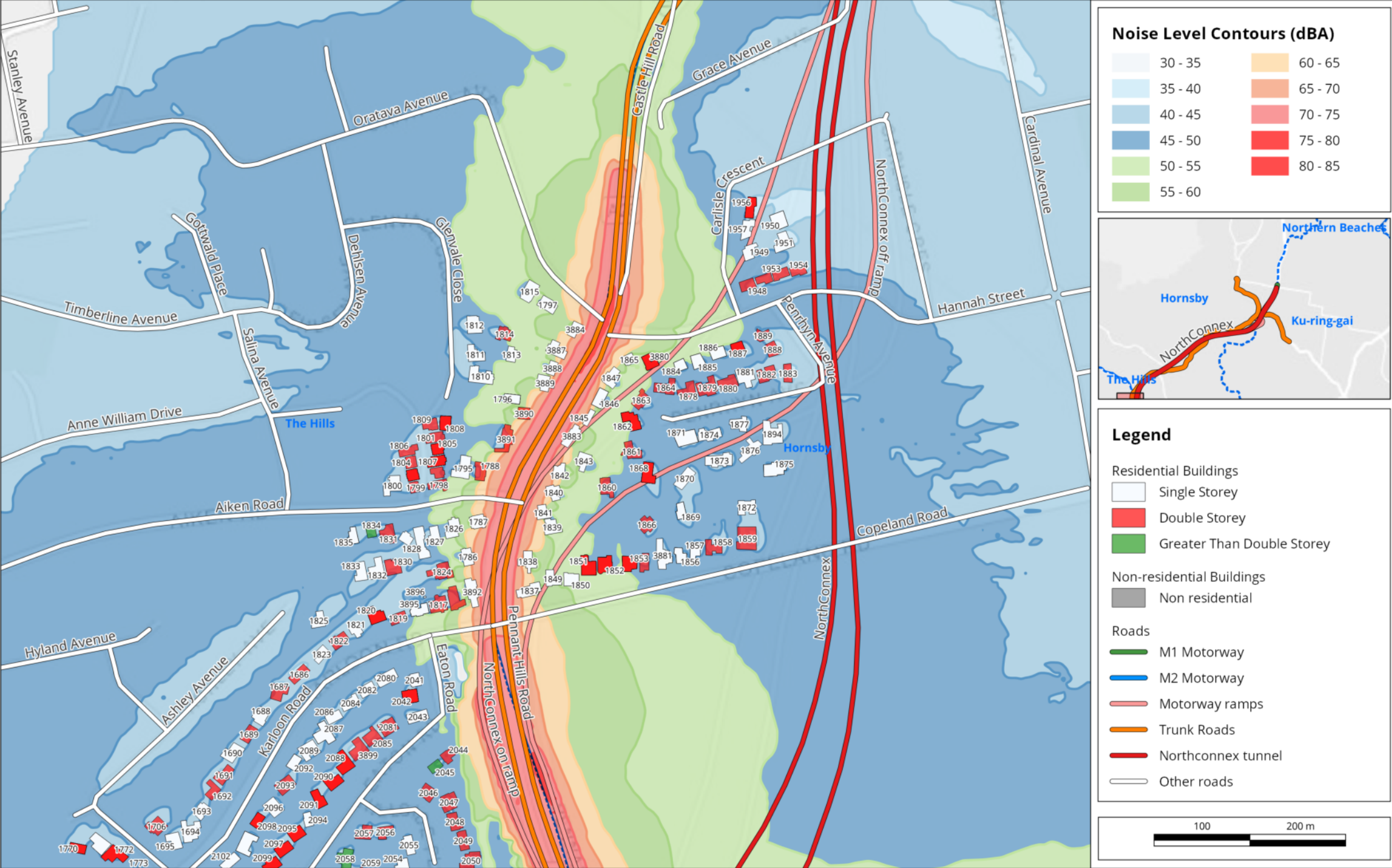
Figure E - 3 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

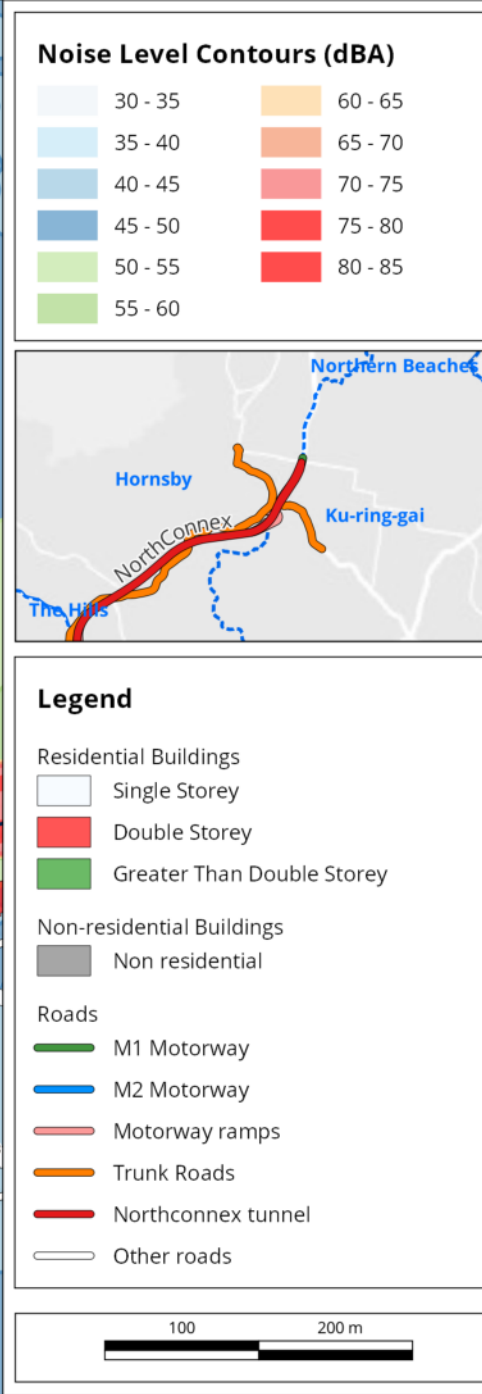
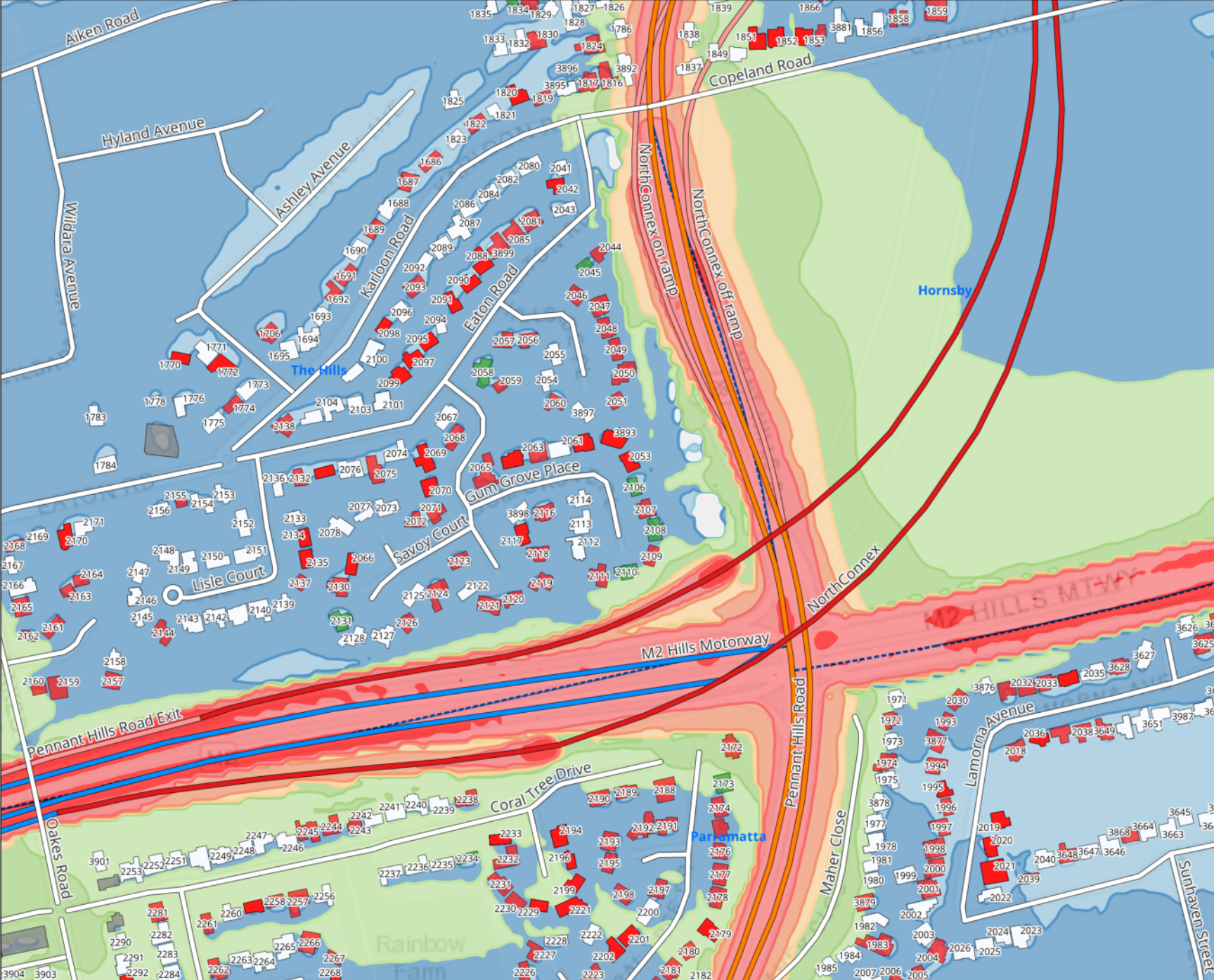
Figure E - 4 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

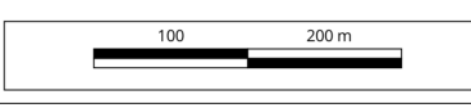
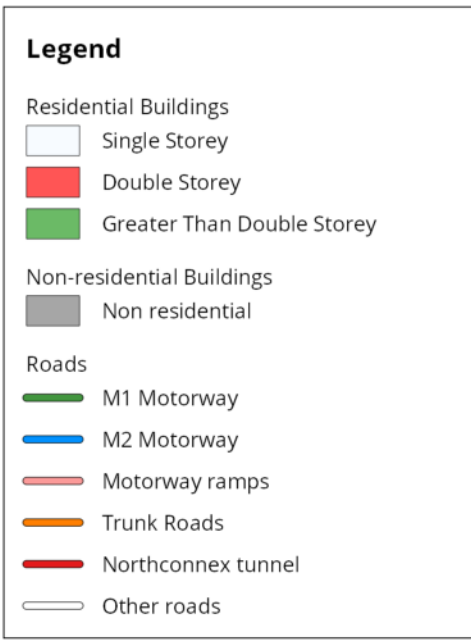
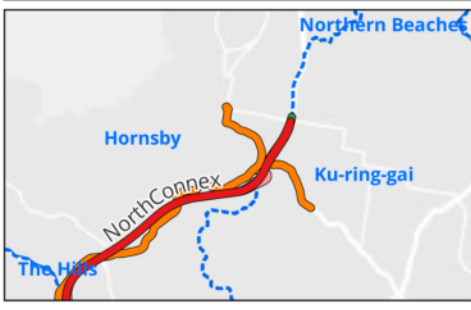
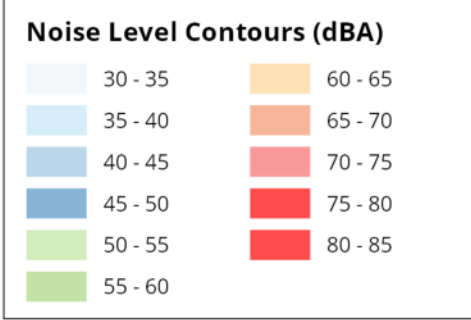
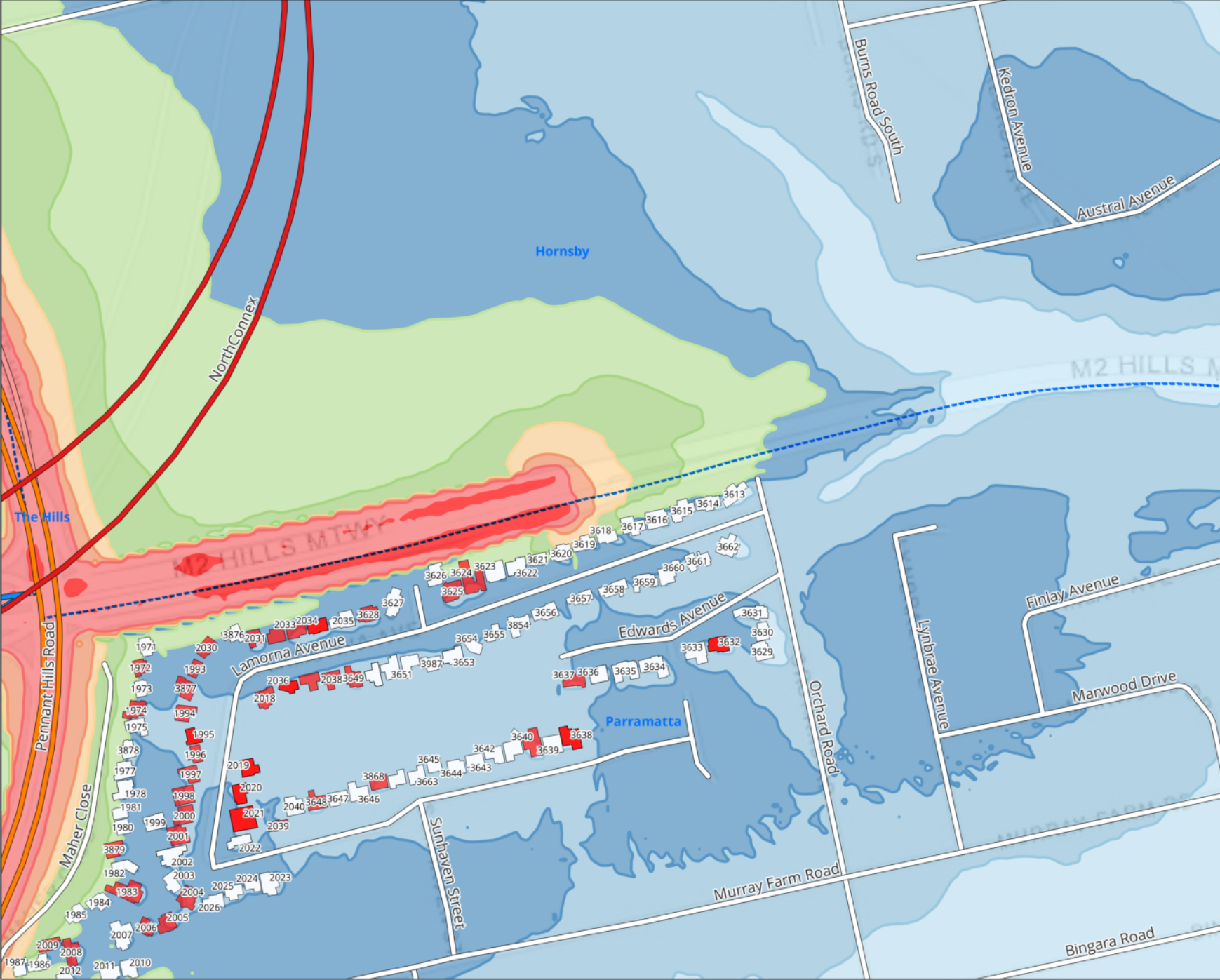
**Map Projection:** GDA94 / MGA zone 56 (EPSG:28356)

**North Arrow**

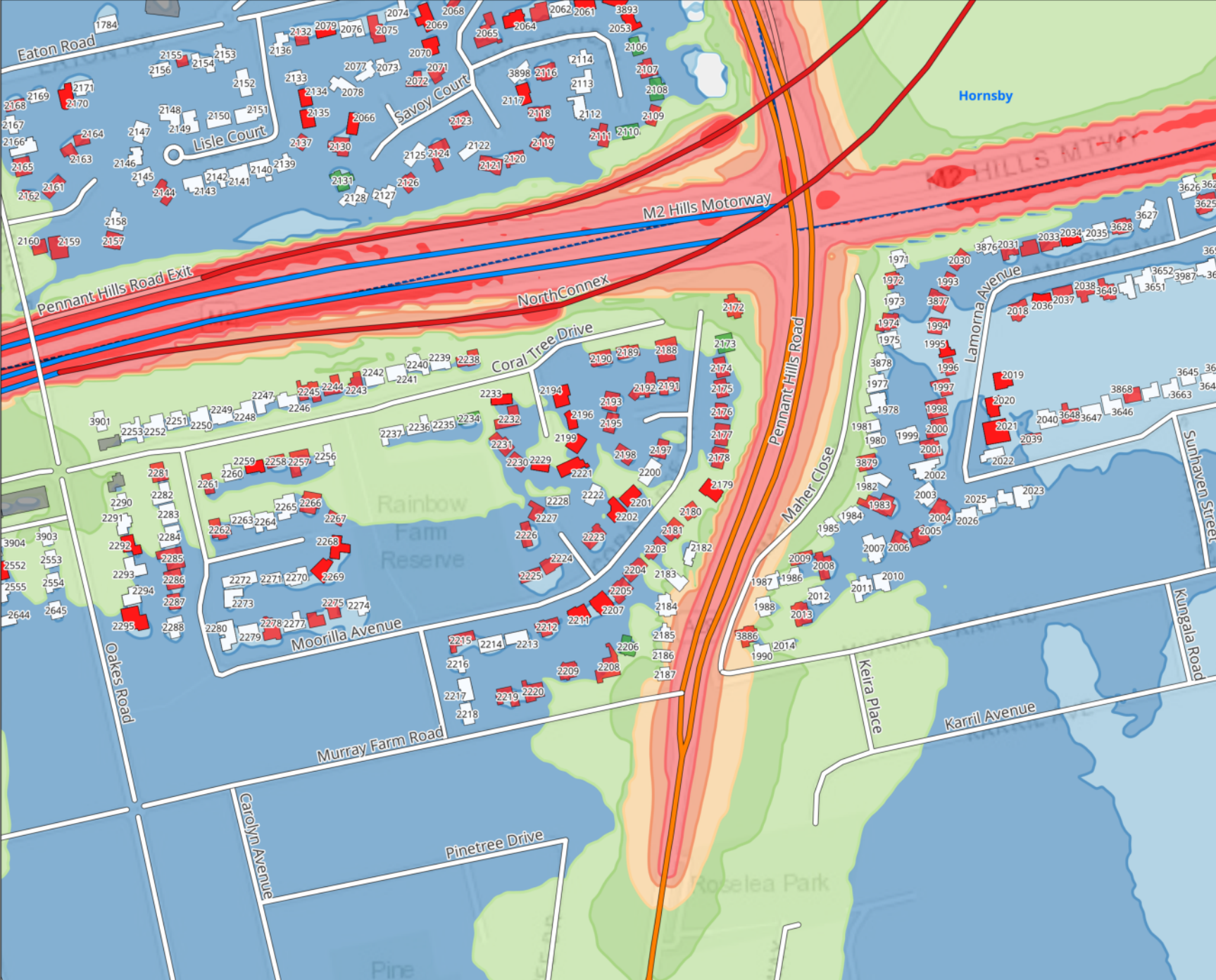
**Drawn by:** APIN **Figure E - 5 of 12**

**Project #:** 2202138

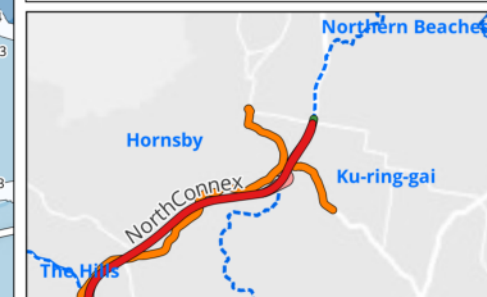
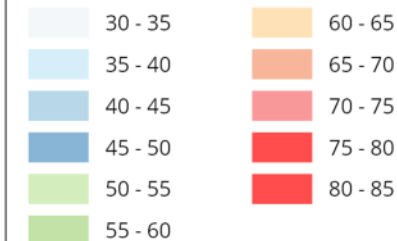
**Date Revised:** 16 Aug 2022





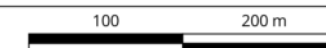


### Noise Level Contours (dBA)



### Legend

- Residential Buildings**
- Single Storey
  - Double Storey
  - Greater Than Double Storey
- Non-residential Buildings**
- Non residential
- Roads**
- M1 Motorway
  - M2 Motorway
  - Motorway ramps
  - Trunk Roads
  - Northconnex tunnel
  - Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs  
**Receiver Height for noise contours:** 1.5m

Sources:  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

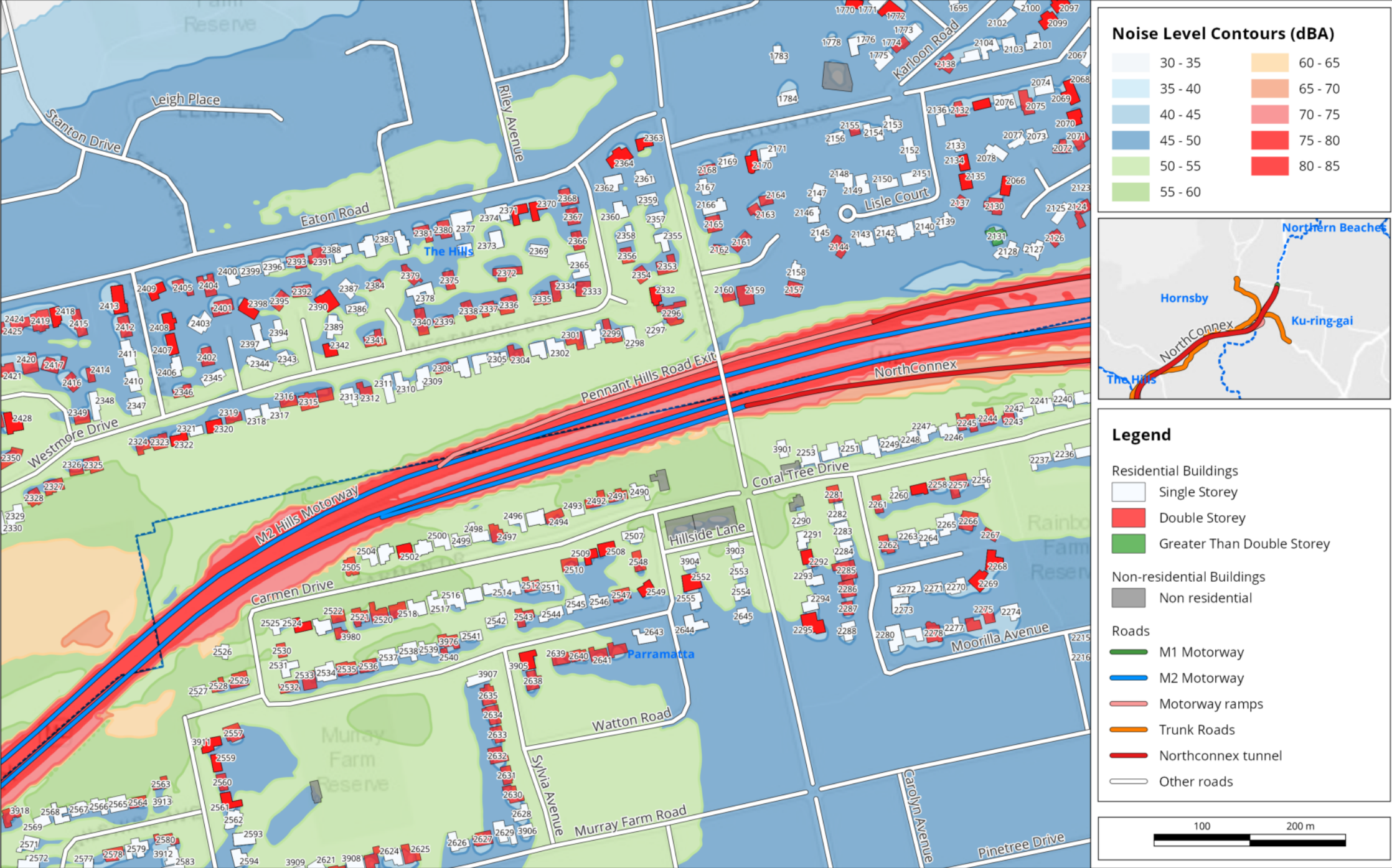
Figure E - 7 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

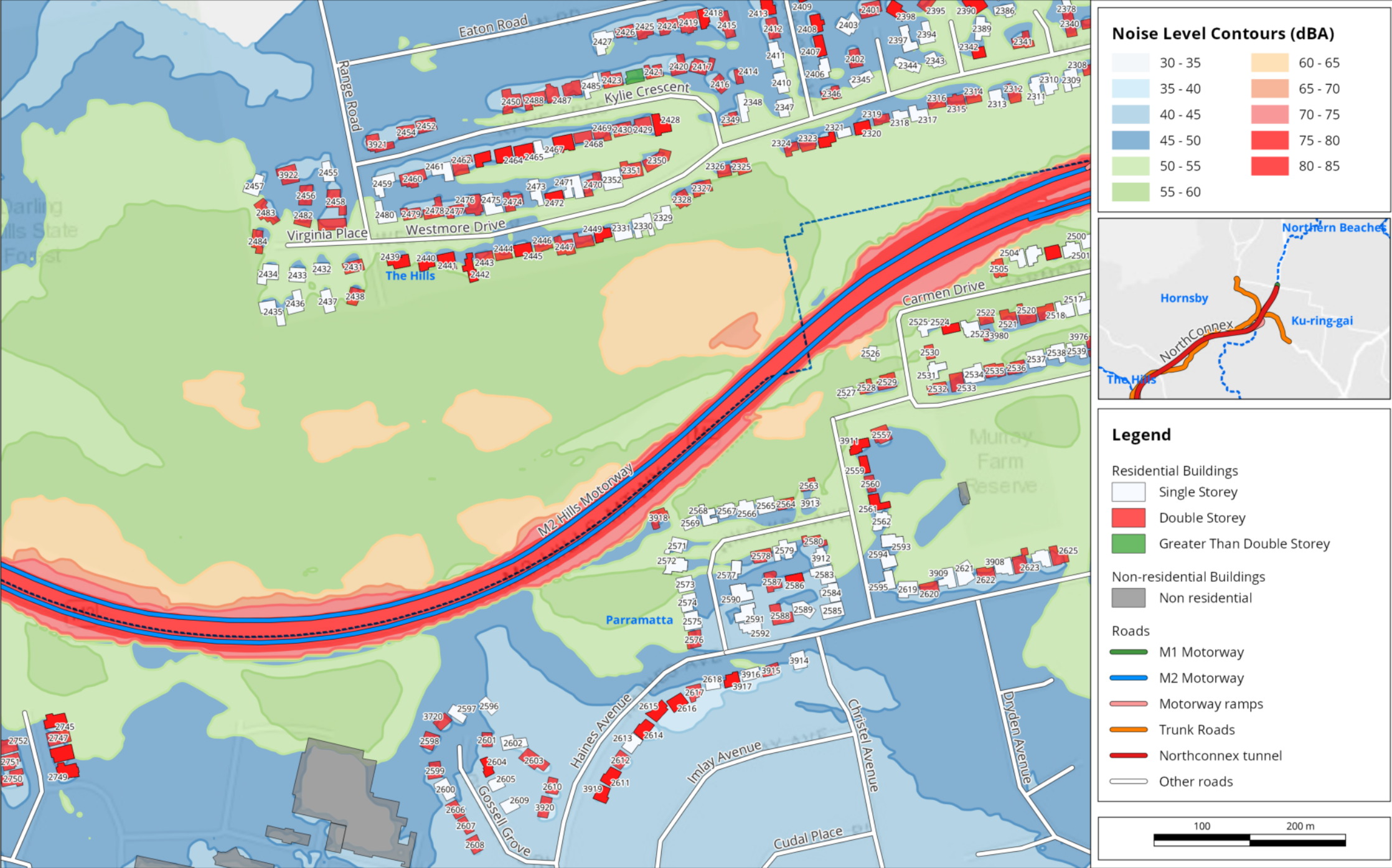
Figure E - 8 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

Figure E - 9 of 12

Project #: 2202138

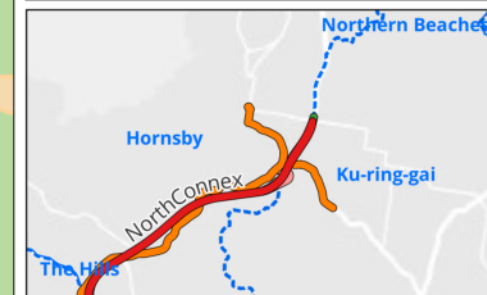
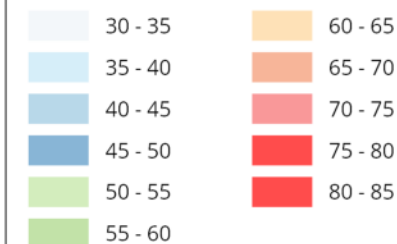
Date Revised: 16 Aug 2022







### Noise Level Contours (dBA)



### Legend

#### Residential Buildings

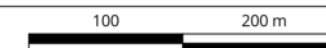
- Single Storey
- Double Storey
- Greater Than Double Storey

#### Non-residential Buildings

- Non residential

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



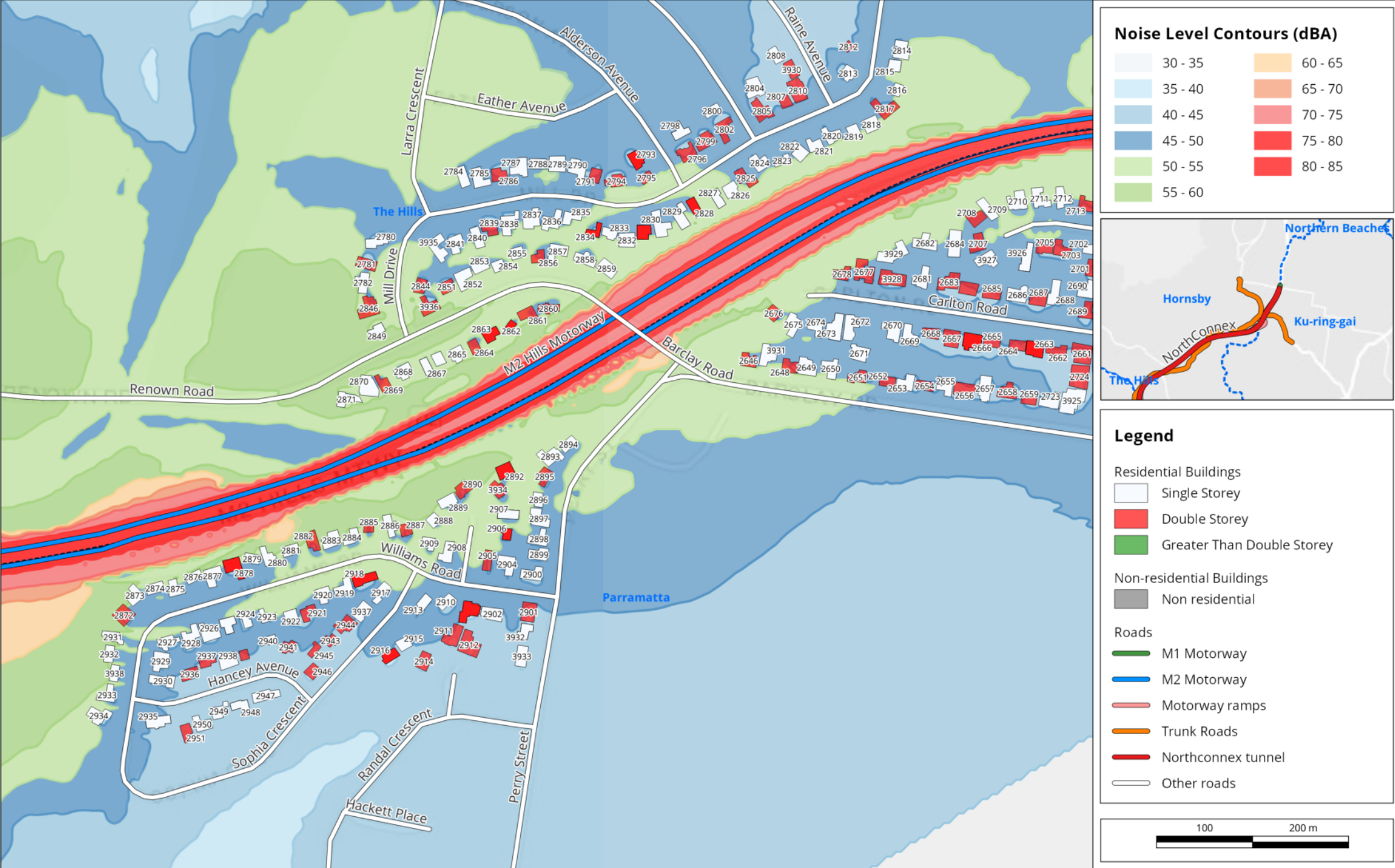
Drawn by: APIN

Figure E - 10 of 12

Project #: 2202138

Date Revised: 16 Aug 2022





**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

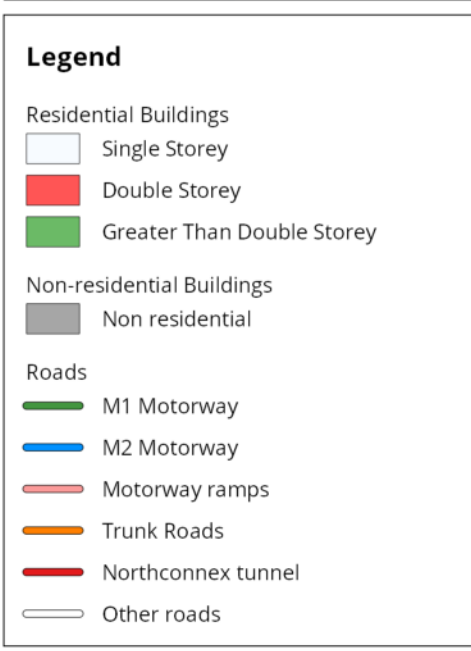
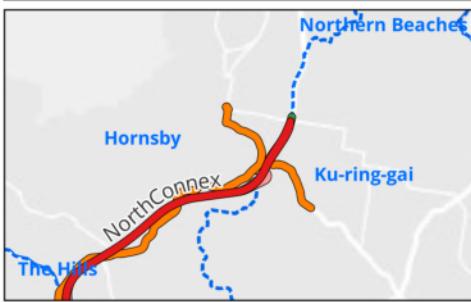
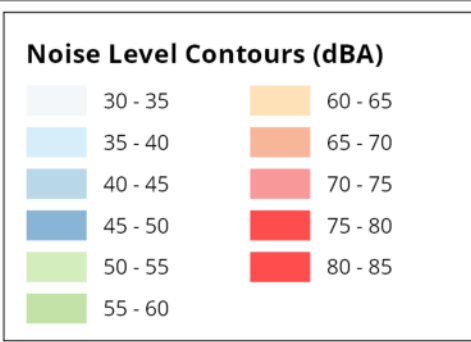
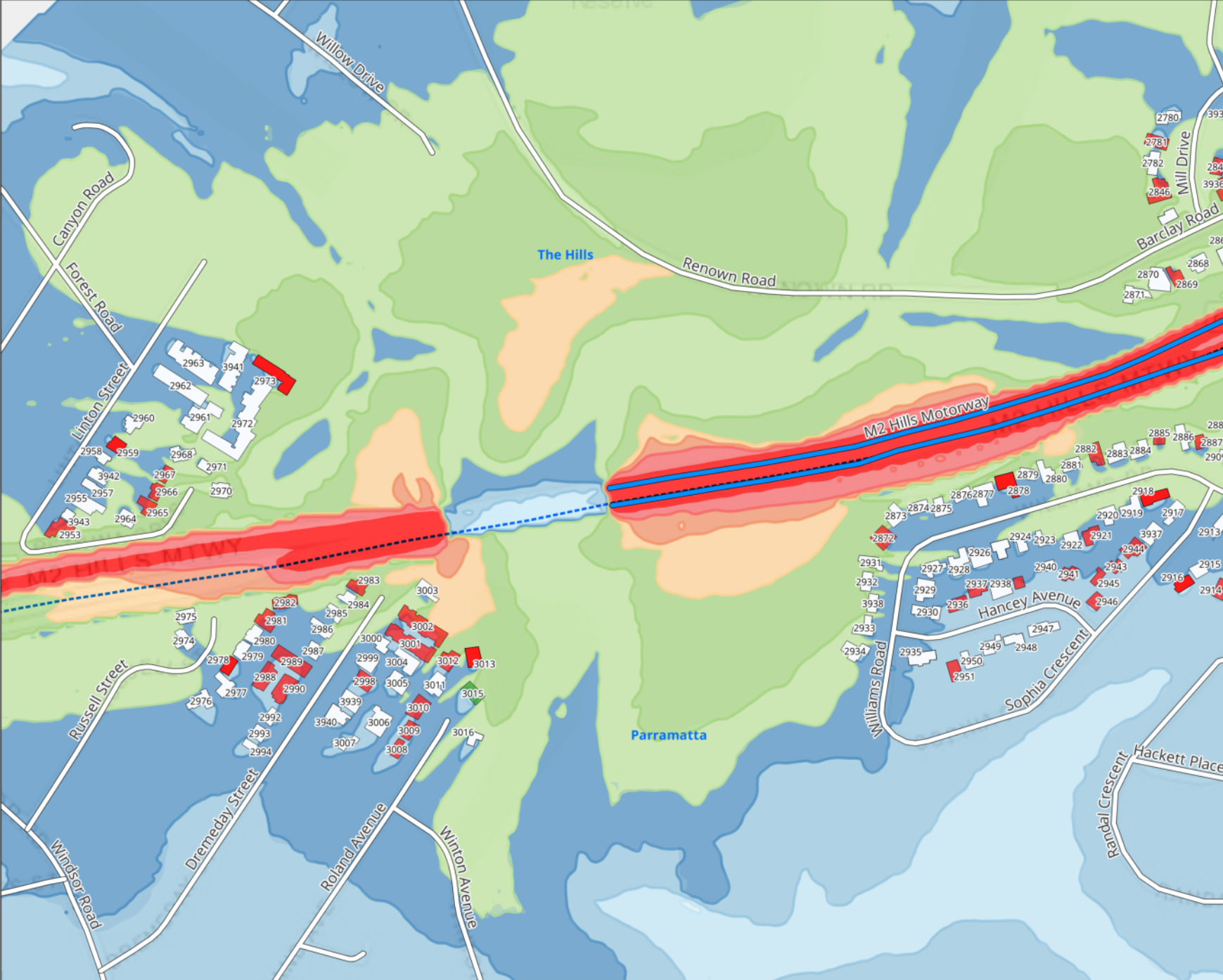
Figure E - 11 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Residential Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 15hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)

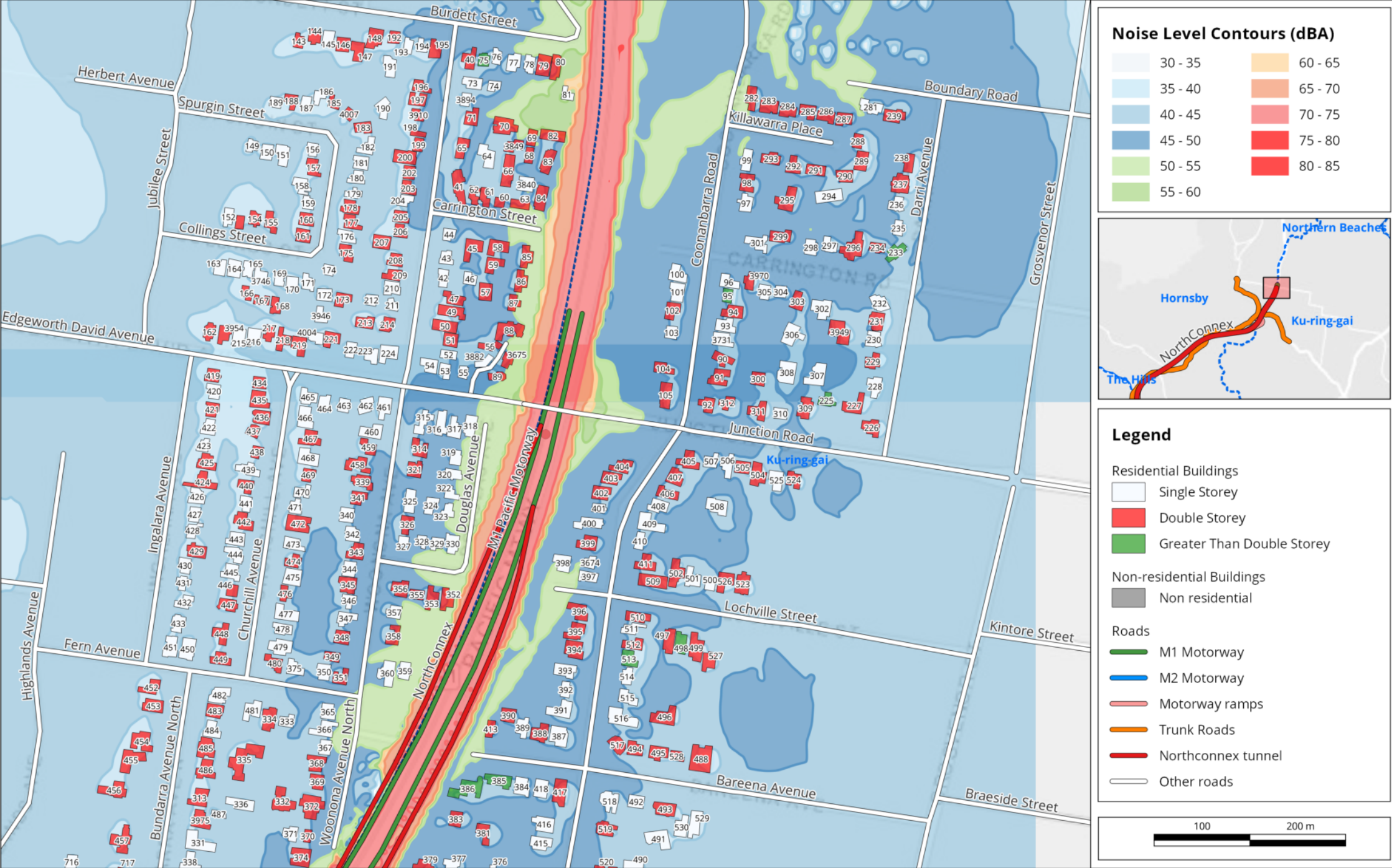
Drawn by: APIN

Project #: 2202138

Date Revised: 16 Aug 2022

Figure E - 12 of 12





**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs  
**Receiver Height for noise contours:** 1.5m

**Sources:**  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

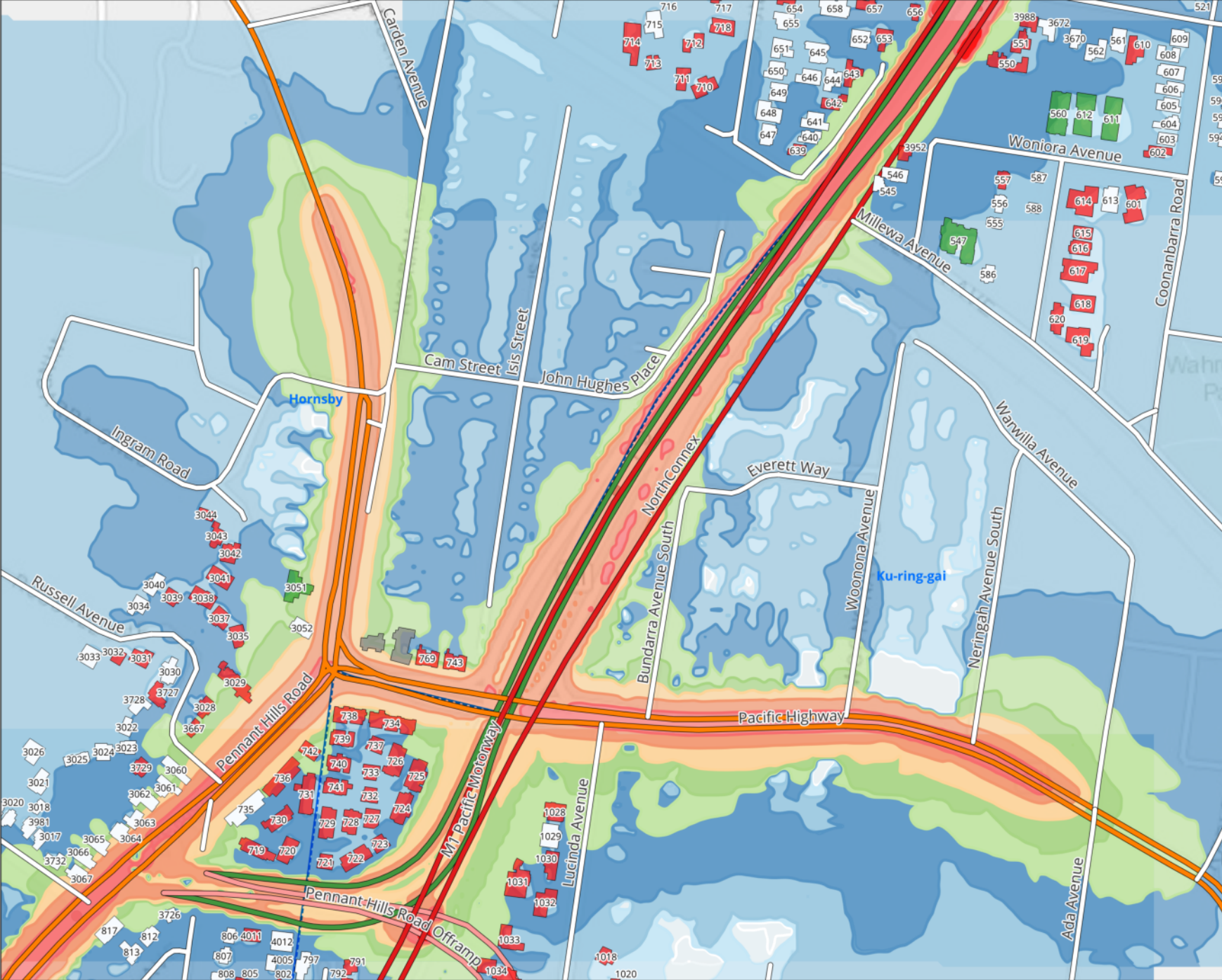
Figure E - 1 of 12

Project #: 2202138

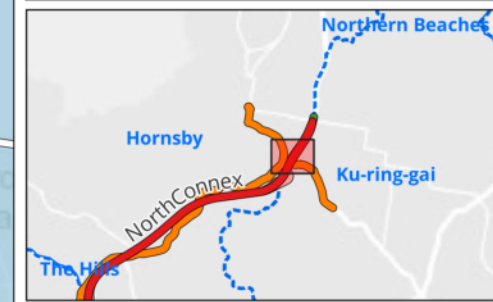
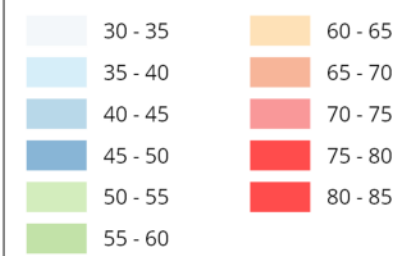
Date Revised: 16 Aug 2022





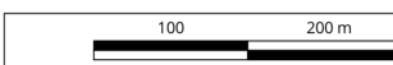


### Noise Level Contours (dBA)



### Legend

- Residential Buildings
  - Single Storey
  - Double Storey
  - Greater Than Double Storey
- Non-residential Buildings
  - Non residential
- Roads
  - M1 Motorway
  - M2 Motorway
  - Motorway ramps
  - Trunk Roads
  - Northconnex tunnel
  - Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option LAeq, 9hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



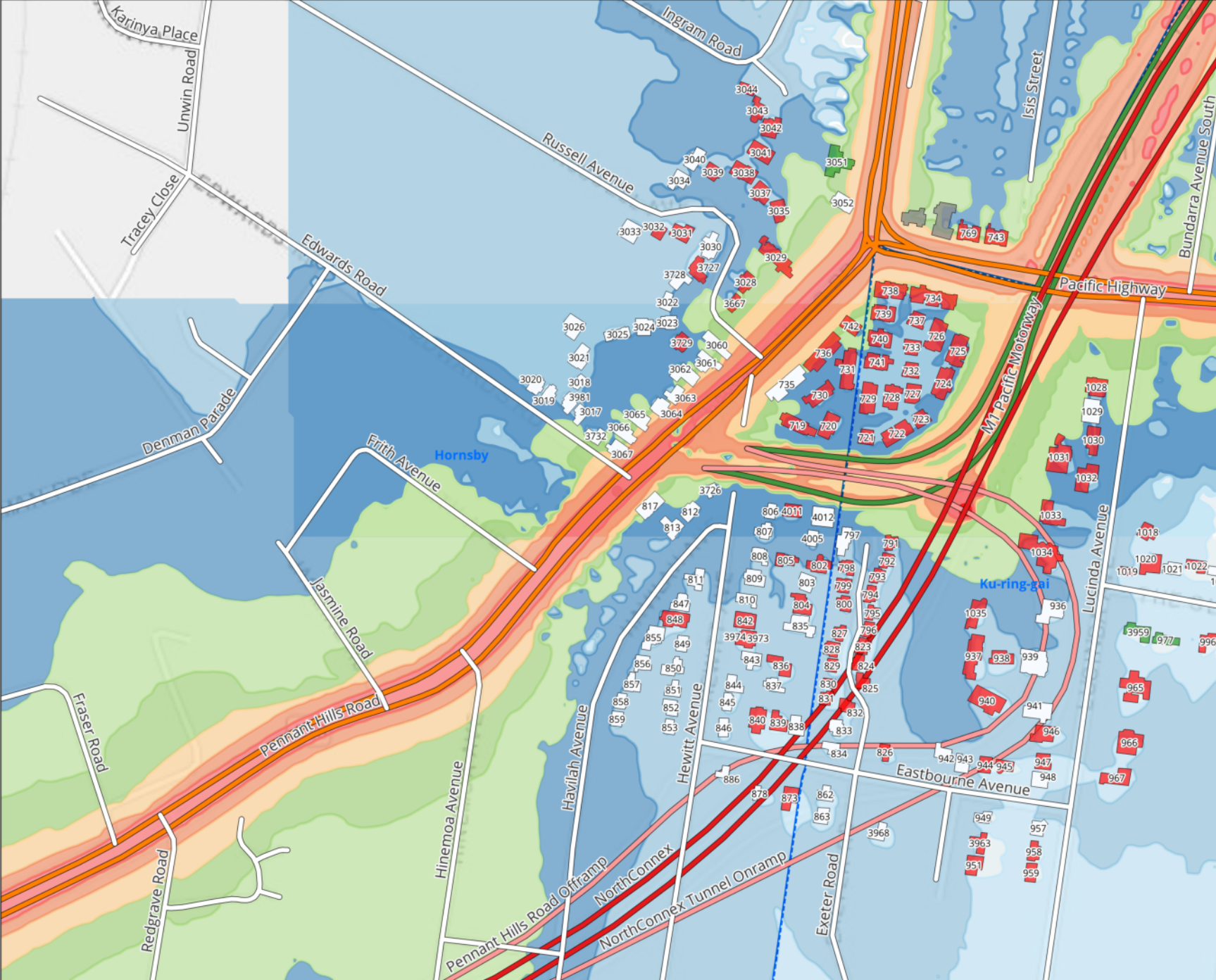
Drawn by: APIN Figure E - 2 of 12

Project #: 2202138

Date Revised: 16 Aug 2022

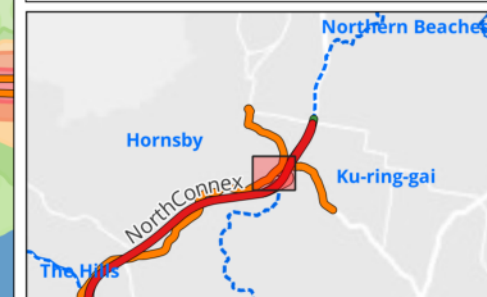






### Noise Level Contours (dBA)

30 - 35	60 - 65
35 - 40	65 - 70
40 - 45	70 - 75
45 - 50	75 - 80
50 - 55	80 - 85
55 - 60	



### Legend

#### Residential Buildings

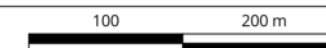
- Single Storey
- Double Storey
- Greater Than Double Storey

#### Non-residential Buildings

- Non residential

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs

**Receiver Height for noise contours:** 1.5m

Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

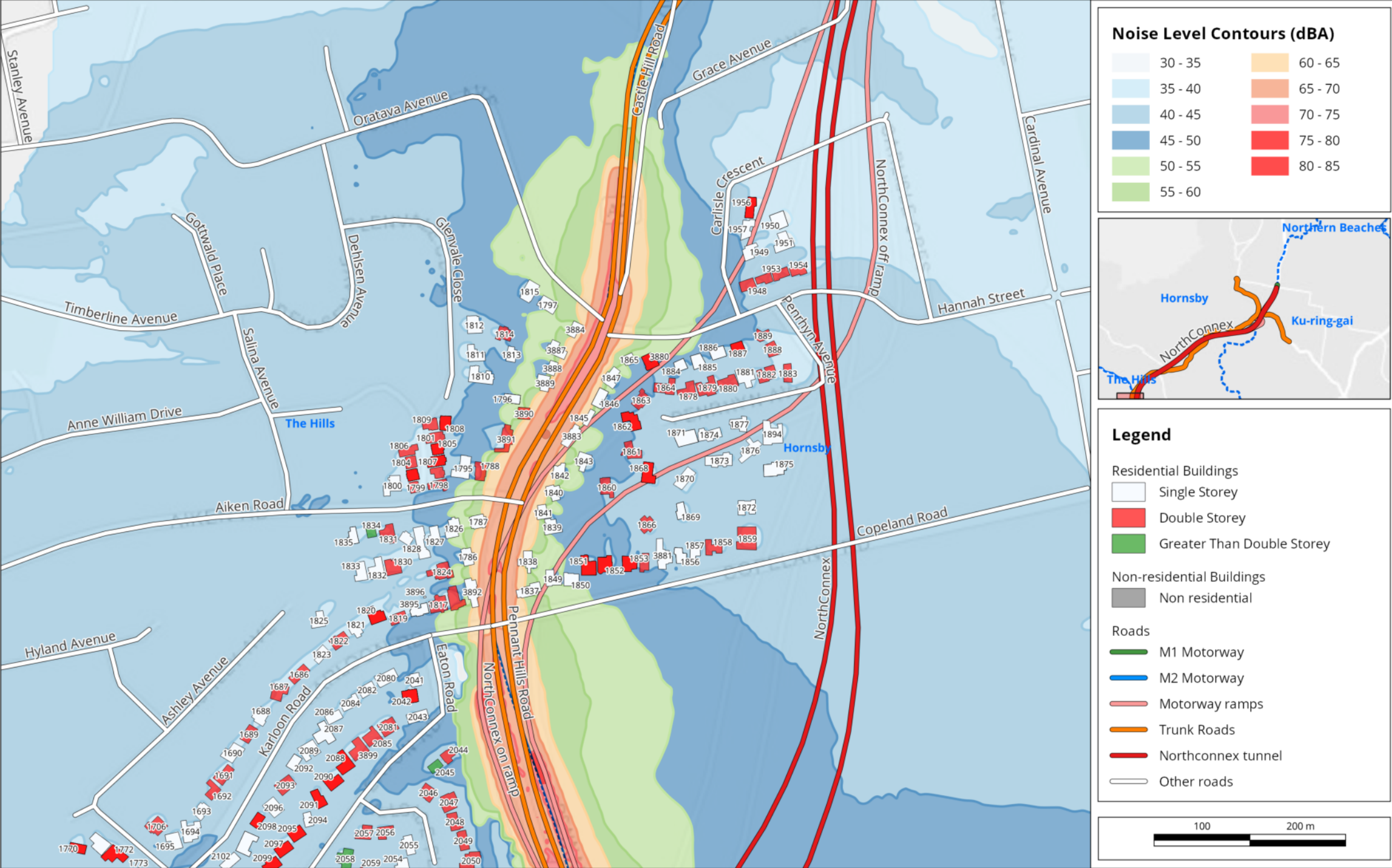
Figure E - 3 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option L<sub>Aeq</sub>, 9hrs  
**Receiver Height for noise contours:** 1.5m

**Sources:**  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

Figure E - 4 of 12

Project #: 2202138

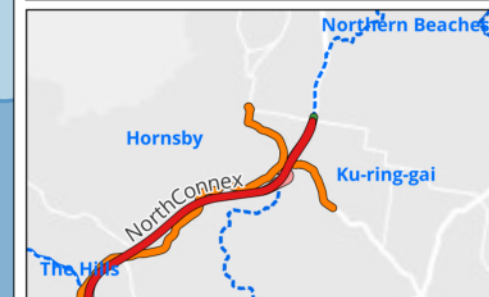
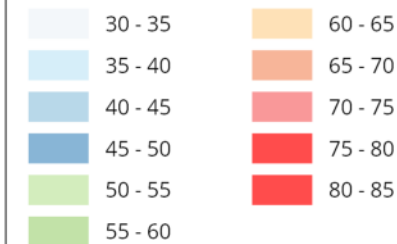
Date Revised: 16 Aug 2022







### Noise Level Contours (dBA)



### Legend

#### Residential Buildings

- Single Storey
- Double Storey
- Greater Than Double Storey

#### Non-residential Buildings

- Non residential

#### Roads

- M1 Motorway
- M2 Motorway
- Motorway ramps
- Trunk Roads
- Northconnex tunnel
- Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option L<sub>Aeq</sub>, 9hrs

**Receiver Height for noise contours:** 1.5m

#### Sources:

1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



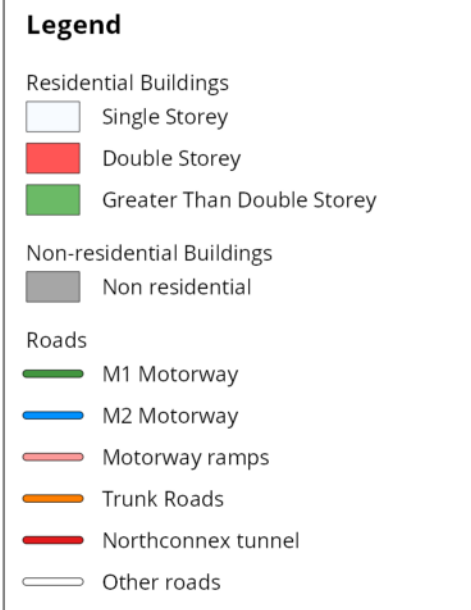
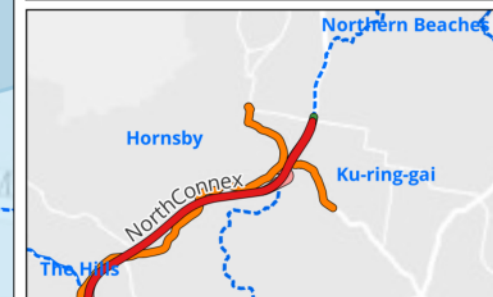
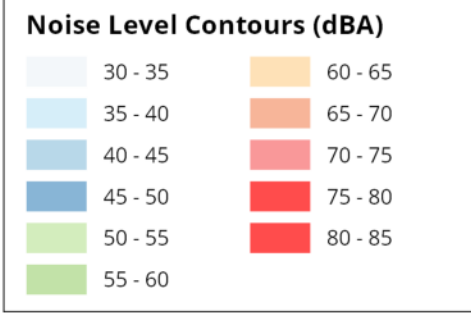
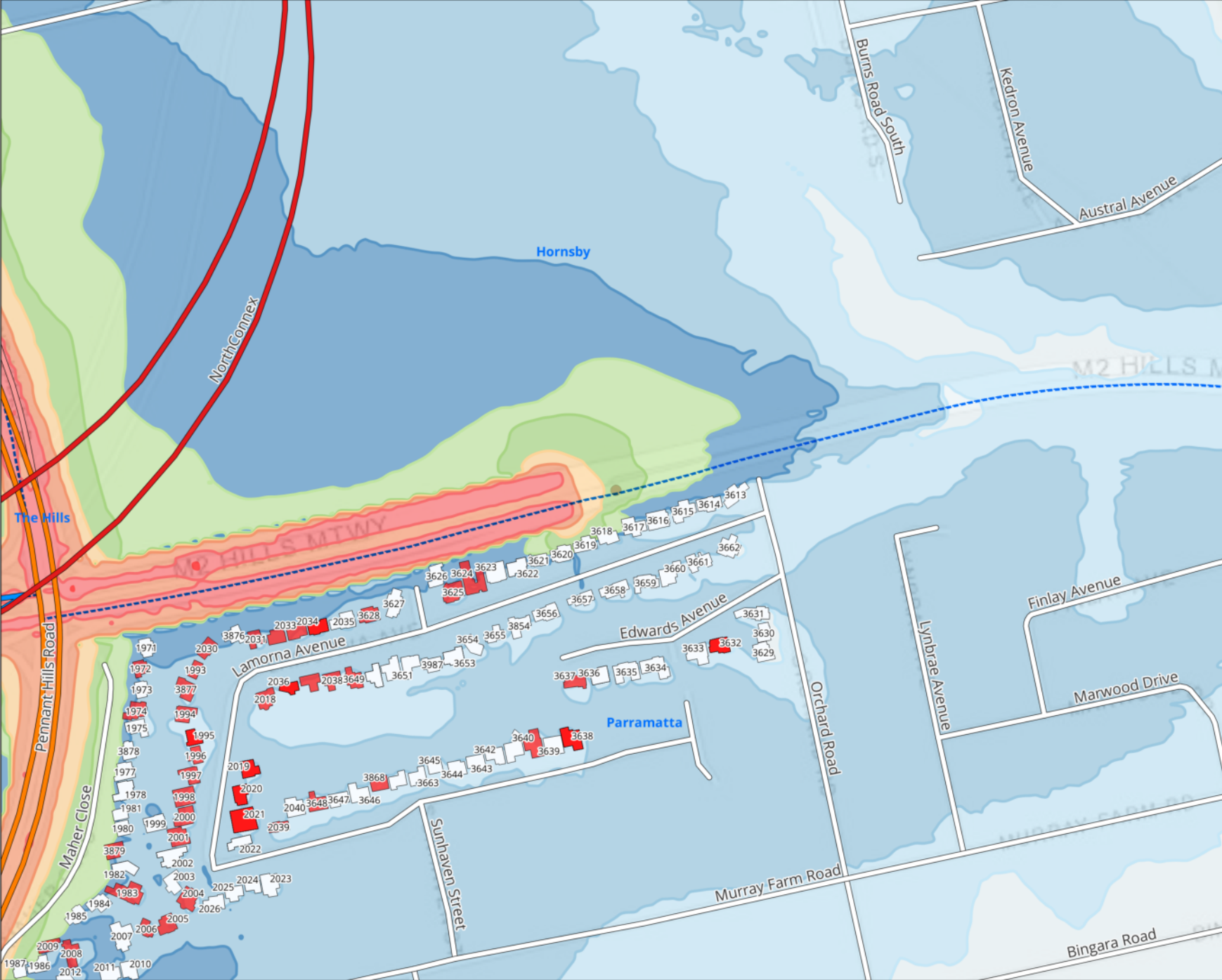
Drawn by: APIN

Figure E - 5 of 12

Project #: 2202138

Date Revised: 16 Aug 2022





**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs  
**Receiver Height for noise contours:** 1.5m

Sources:  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

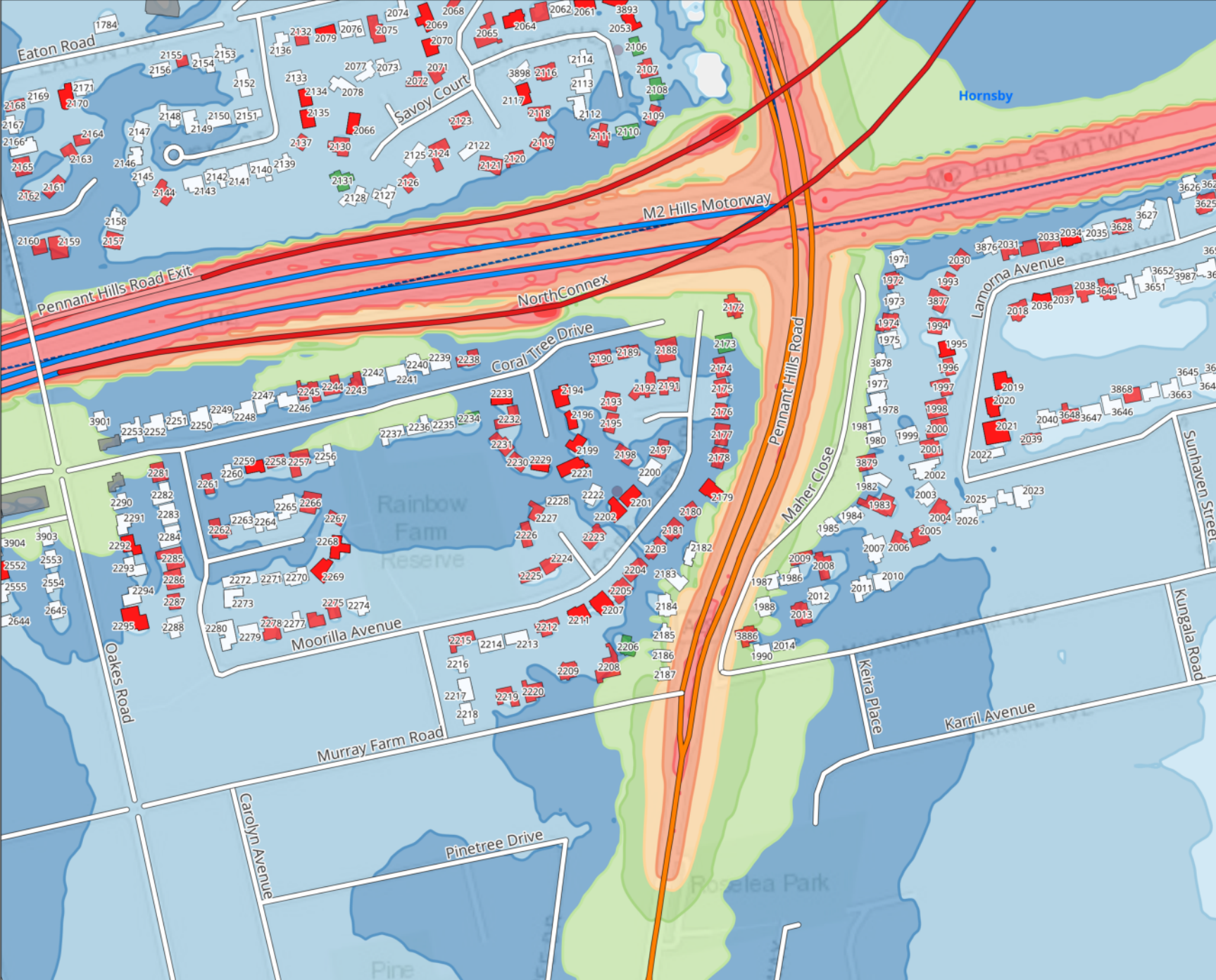
Figure E - 6 of 12

Project #: 2202138

Date Revised: 16 Aug 2022

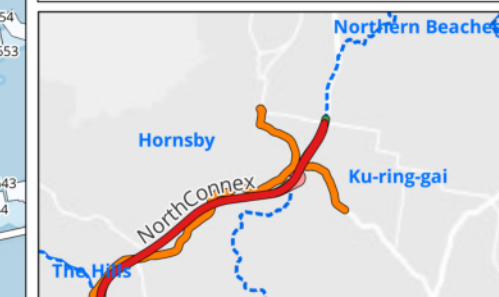






### Noise Level Contours (dBA)

30 - 35	60 - 65
35 - 40	65 - 70
40 - 45	70 - 75
45 - 50	75 - 80
50 - 55	80 - 85
55 - 60	



### Legend

- Residential Buildings**
- Single Storey
  - Double Storey
  - Greater Than Double Storey
- Non-residential Buildings**
- Non residential
- Roads**
- M1 Motorway
  - M2 Motorway
  - Motorway ramps
  - Trunk Roads
  - Northconnex tunnel
  - Other roads



**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs  
**Receiver Height for noise contours:** 1.5m

**Sources:**  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

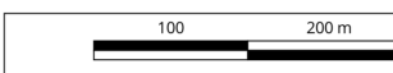
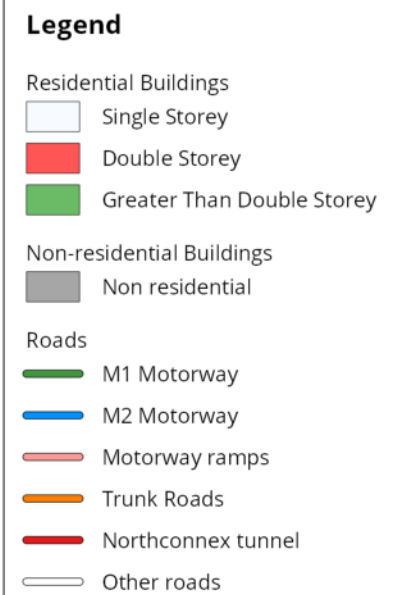
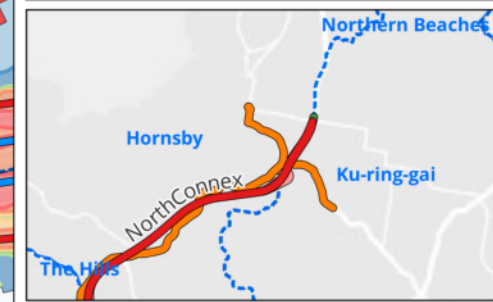
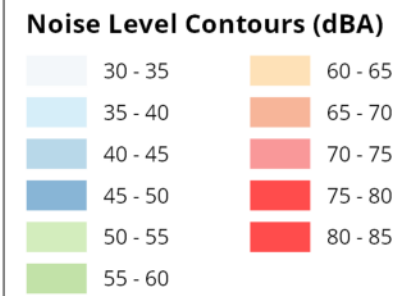
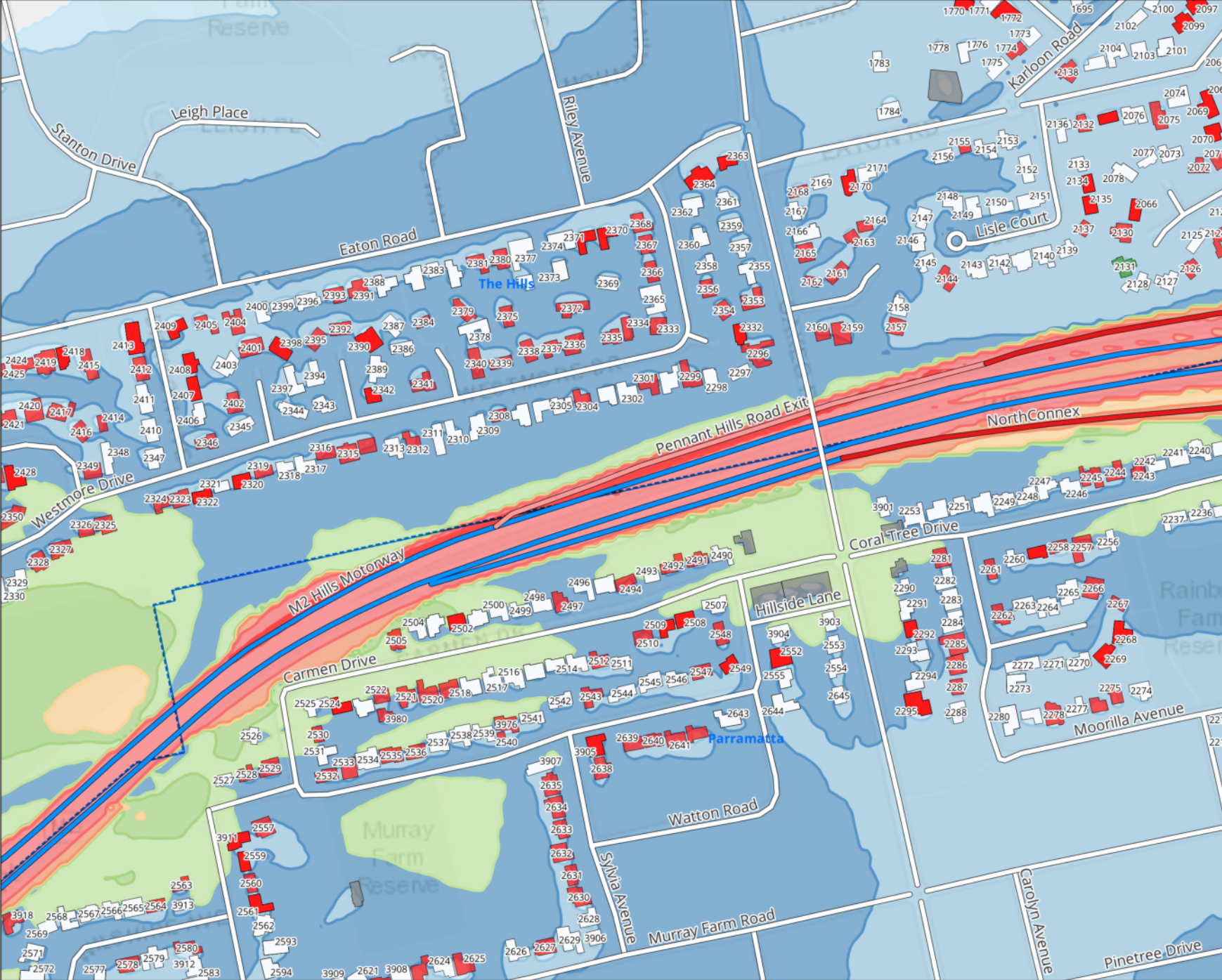
Figure E - 7 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

**Map Projection:** GDA94 / MGA zone 56 (EPSG:28356)

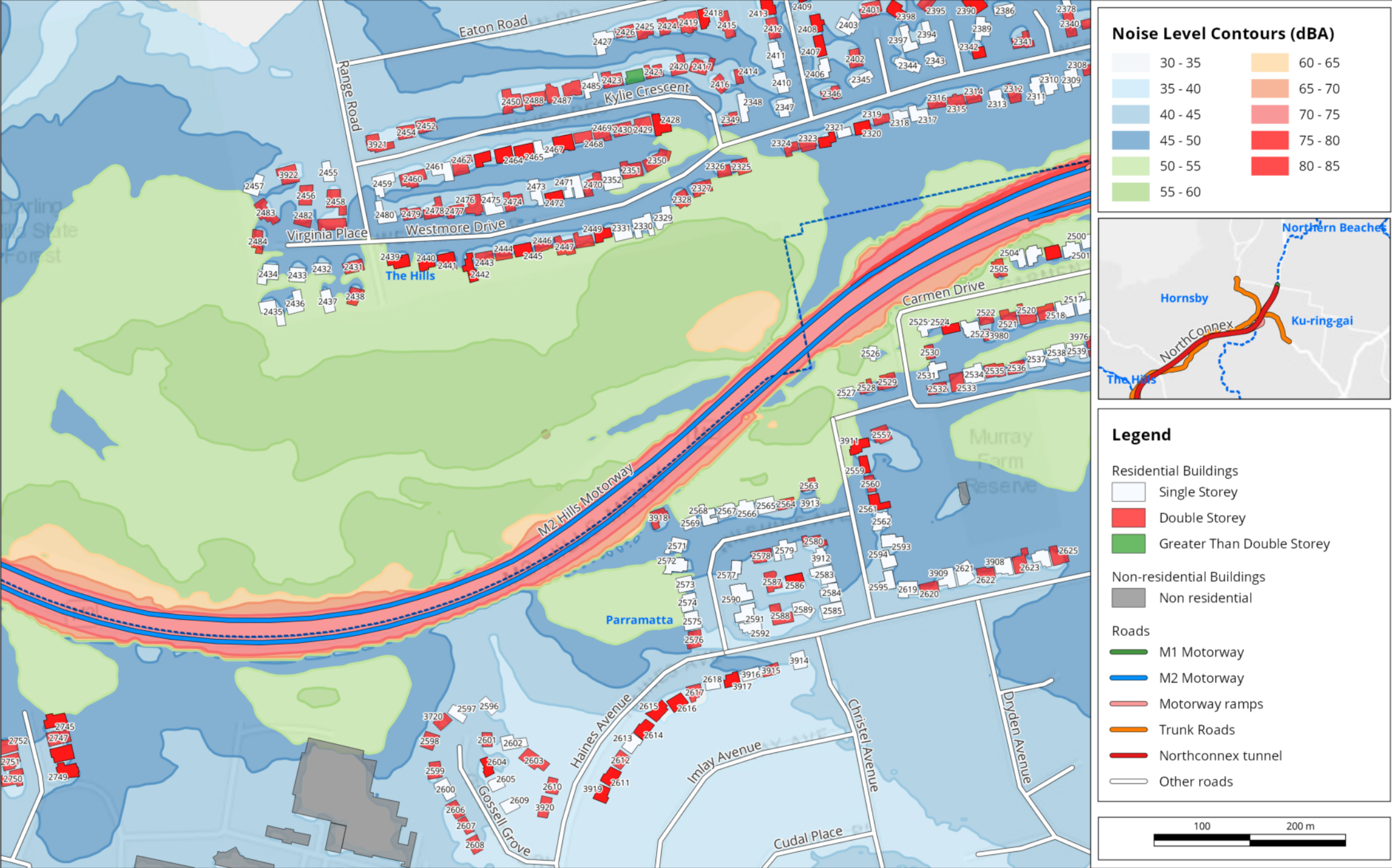
Drawn by: APIN

Project #: 2202138

Date Revised: 16 Aug 2022

Figure E - 8 of 12





**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs

**Receiver Height for noise contours:** 1.5m

**Sources:**  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

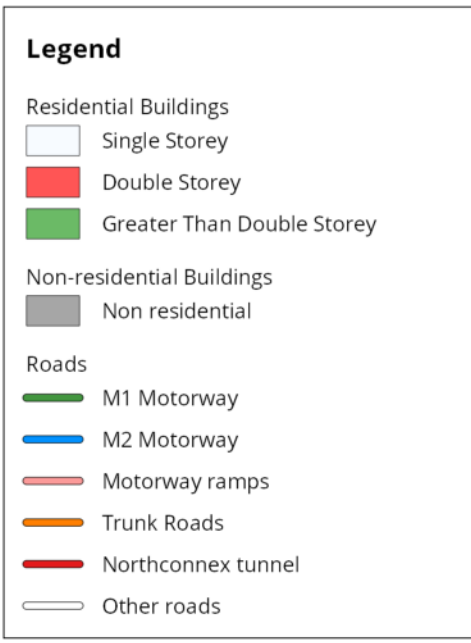
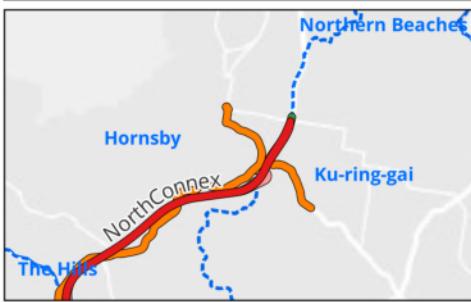
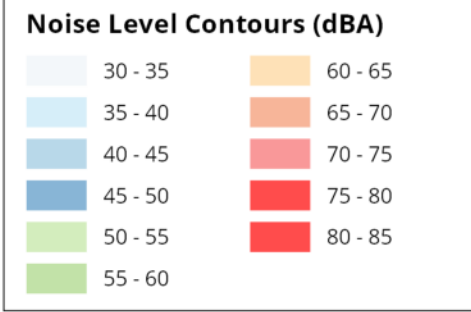
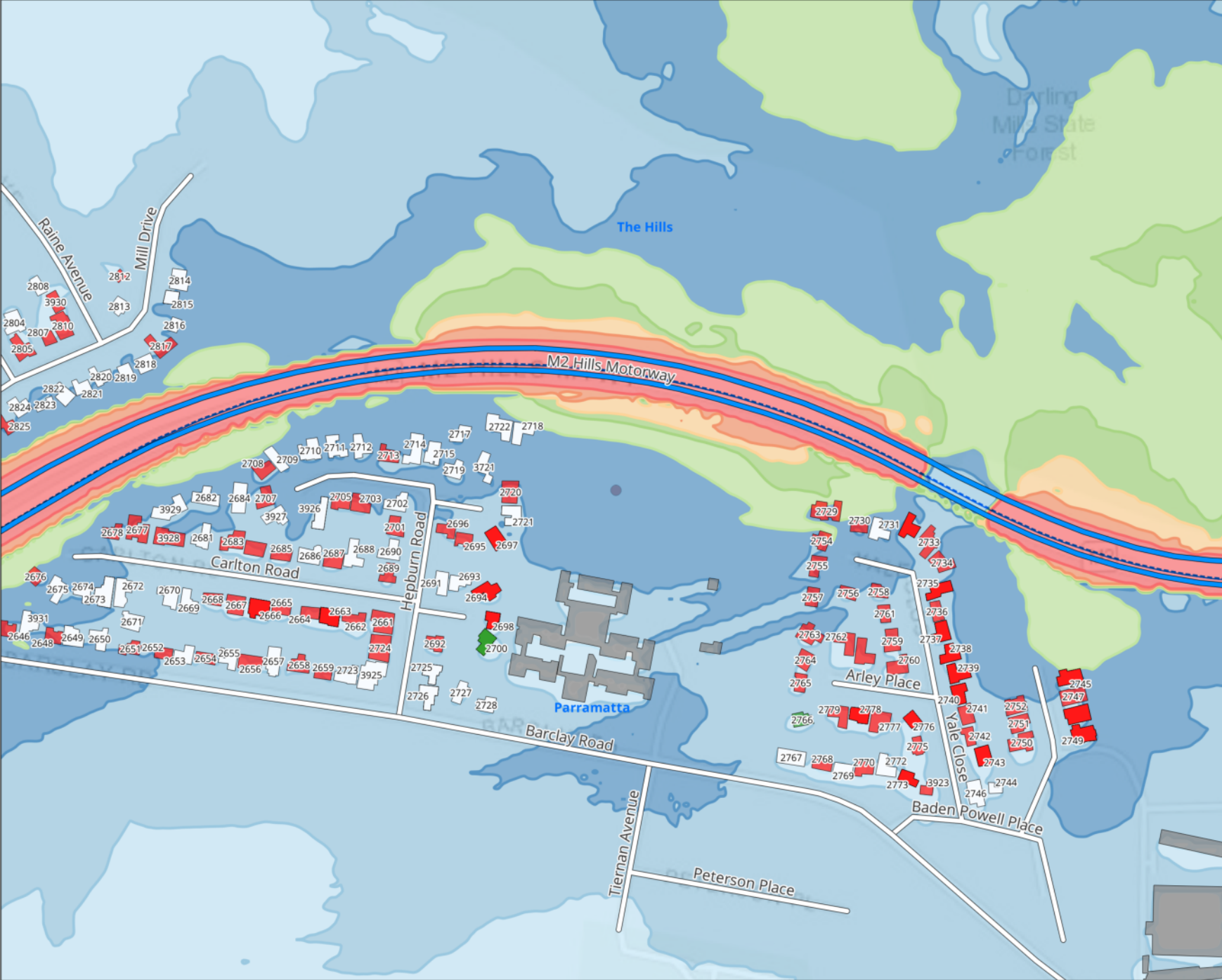
Figure E - 9 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA

**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option LAeq, 9hrs


**Receiver Height for noise contours:** 1.5m

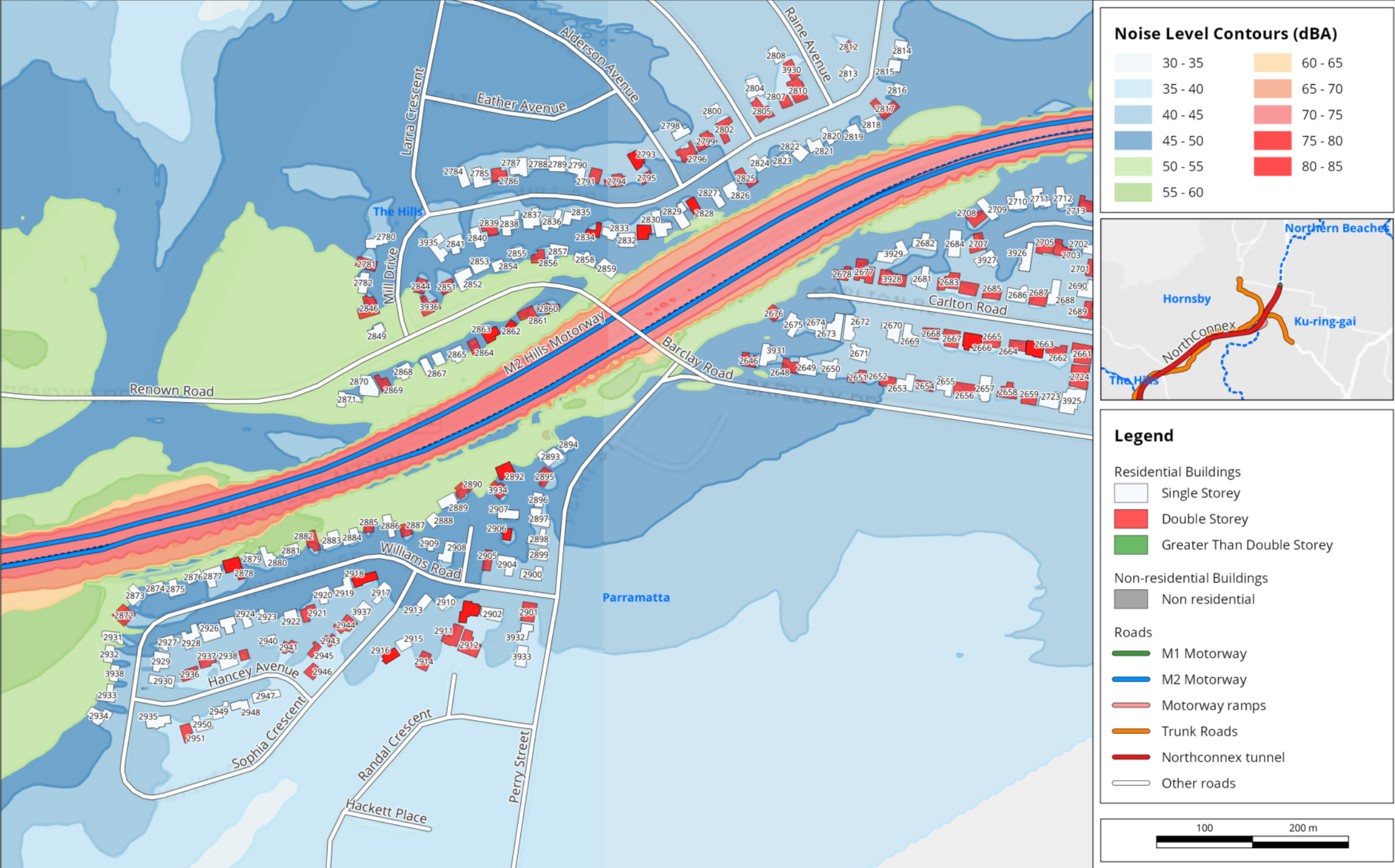
Sources:  
1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN	Figure E - 10 of 12
Project #: 2202138	
Date Revised: 16 Aug 2022	





**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option L<sub>Aeq</sub>, 9hrs  
**Receiver Height for noise contours:** 1.5m

**Sources:**  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

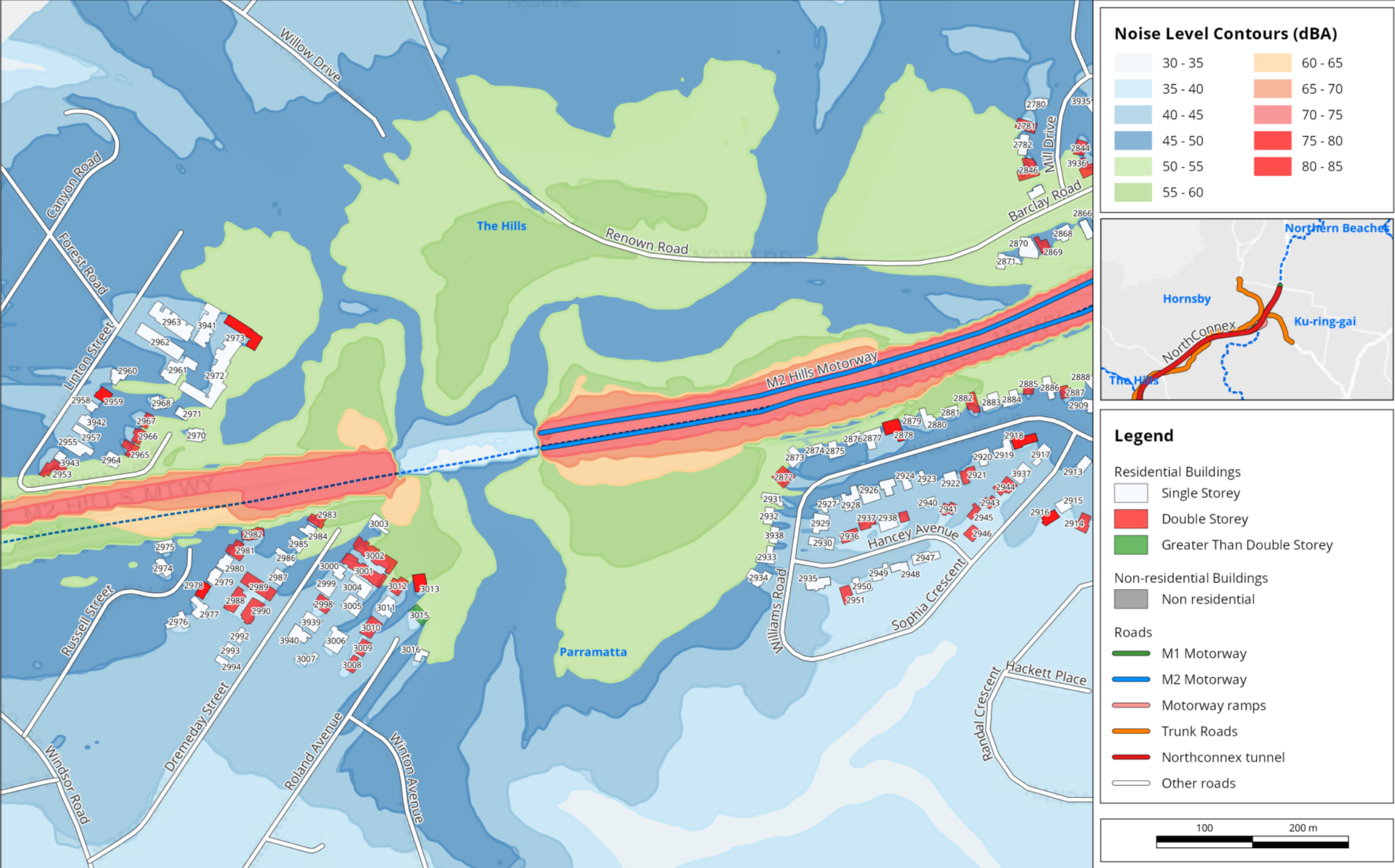
Figure E - 11 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







**Project Name:** NorthConnex Northern/Southern Interchange & M2 Integration - PCNA  
**Figure Name:** Revised Predicted Noise Levels for Year 2029 Build option  $L_{Aeq}$ , 9hrs  
**Receiver Height for noise contours:** 1.5m

**Sources:**  
 1. Basemap: ESRI

Map Projection: GDA94 / MGA zone 56 (EPSG:28356)



Drawn by: APIN

Figure E - 12 of 12

Project #: 2202138

Date Revised: 16 Aug 2022







# APPENDIX F

CHANGE IN PREDICTED NOISE LEVELS



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
40	204	1A	Residence	No	120 Burdett Street	60	55	60	56	60	56	0	0
41	306	1A	Residence	No	2 Carrington Road	60	55	57	53	57	53	0	0
42	391	1A	Residence	No	39 Woonona Avenue North	60	55	53	50	53	50	0	0
43	370	1A	Residence	No	41 Woonona Avenue North	60	55	54	50	54	50	0	0
44	353	1A	Residence	No	1 Carrington Road	60	55	55	51	55	51	0	0
45	358	1A	Residence	No	3 Carrington Road	60	55	57	54	57	54	0	0
46	386	1A	Residence	No	1A Carrington Road	60	55	54	50	54	50	0	0
47	410	1A	Residence	No	39A Woonona Avenue North	60	55	57	53	57	53	0	0
49	432	1A	Residence	No	37 Woonona Avenue North	60	55	58	54	58	54	0	0
50	438	1A	Residence	No	35 Woonona Avenue North	60	55	57	53	57	53	0	0
51	444	1A	Residence	No	35 Woonona Avenue North	60	55	56	53	56	53	0	0
52	462	1A	Residence	No	125 Edgeworth David Avenue	60	55	52	48	52	48	0	0
53	481	1A	Residence	No	125 Edgeworth David Avenue	60	55	55	51	55	51	0	0
54	483	1A	Residence	No	123 Edgeworth David Avenue	60	55	53	50	53	50	0	0
55	475	1A	Residence	No	127 Edgeworth David Avenue	60	55	56	53	56	53	0	0
56	437	1A	Residence	Yes (1)	2 Deakin Way	60	55	64	60	64	60	0	0
57	392	1A	Residence	No	3A Carrington Road	60	55	59	55	59	55	0	0
58	350	1A	Residence	No	5A Carrington Road	60	55	62	58	62	58	0	0
59	369	1A	Residence	No	5A Carrington Road	60	55	61	57	61	57	0	0
60	314	1A	Residence	No	6-8 Carrington Road	60	55	61	57	61	57	0	0
61	311	1A	Residence	No	4B Carrington Street	60	55	58	55	58	55	0	0
62	313	1A	Residence	No	4 Carrington Street	60	55	57	54	57	54	0	0
63	305	1A	Residence	Yes (2)	6-8 Carrington Road	60	55	68	64	68	64	0	0
64	279	1A	Residence	No	4A Carrington Road	60	55	55	51	55	51	0	0
65	277	1A	Residence	No	45 Woonona Avenue North	60	55	59	55	59	55	0	0
66	289	1A	Residence	No	6-8 Carrington Road	60	55	57	53	57	53	0	0
68	269	1A	Residence	Yes (1)	10-12 Carrington Road	60	55	64	61	64	61	0	0
69	255	1A	Residence	Yes (1)	10-12 Carrington Road	60	55	68	64	68	64	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
70	254	1A	Residence	No	45A Woonona Avenue South	60	55	64	61	64	61	0	0
71	252	1A	Residence	No	47 Woonona Avenue North	60	55	60	56	60	56	0	0
73	233	1A	Residence	No	51 Woonona Avenue North	60	55	54	50	54	50	0	0
74	229	1A	Residence	No	124A Burdett Street	60	55	57	53	57	53	0	0
75	208	1A	Residence	No	122 Burdett Street	60	55	61	58	61	58	0	0
76	202	1A	Residence	No	124 Burdett Street	60	55	59	55	59	55	0	0
77	201	1A	Residence	No	126 Burdett Street	60	55	61	58	61	58	0	0
78	199	1A	Residence	No	128 Burdett Street	60	55	61	57	61	57	0	0
79	197	1A	Residence	No	130 Burdett Street	60	55	64	61	64	61	0	0
80	196	1A	Residence	No	132 Burdett Street	60	55	69	65	69	65	0	0
81	216	1A	Residence	No	134 Burdett Street	60	55	68	64	68	64	0	0
82	248	1A	Residence	Yes (2)	10-12 Carrington Road	60	55	75	72	75	72	0	0
83	270	1A	Residence	No	10-12 Carrington Road	60	55	62	58	62	58	0	0
84	299	1A	Residence	Yes (2)	10-12 Carrington Road	60	55	70	66	70	66	0	0
85	346	1A	Residence	Yes (2)	7 Carrington Road	60	55	72	68	72	68	0	0
86	371	1A	Residence	Yes (2)	7 Carrington Road	60	55	70	66	70	66	0	0
87	396	1A	Residence	Yes (2)	7 Carrington Road	60	55	67	63	67	63	0	0
88	424	1A	Residence	Yes (3)	4 Deakin Way	60	55	72	69	72	69	0	0
89	468	1A	Residence	Yes (1)	7 Deakin Way	60	55	68	64	68	64	0	0
90	384	2B	Residence	No	123 Coonanbarra Road	60	55	57	54	57	54	0	0
91	405	2B	Residence	No	121 Coonanbarra Road	60	55	57	53	57	53	0	0
92	420	2B	Residence	No	119 Coonanbarra Road	60	55	58	55	58	55	0	0
93	349	2B	Residence	No	127 Coonanbarra Road	60	55	56	53	56	53	0	0
94	339	2B	Residence	No	129 Coonanbarra Road	60	55	57	54	57	54	0	0
95	328	2B	Residence	No	131 Coonanbarra Road	60	55	57	54	57	54	0	0
96	320	2B	Residence	No	133 Coonanbarra Road	60	55	58	55	58	55	0	0
97	256	2B	Residence	No	139 Coonanbarra Road	60	55	59	55	59	55	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
98	246	2B	Residence	No	141 Coonanbarra Road	60	55	59	56	59	56	0	0
99	236	2B	Residence	No	1 Killawarra Place	60	55	59	55	59	55	0	0
100	324	2A	Residence	No	152 Coonanbarra Road	60	55	57	54	57	54	0	0
101	340	2A	Residence	No	150 Coonanbarra Road	60	55	57	53	57	53	0	0
102	355	2A	Residence	No	148 Coonanbarra Road	60	55	57	54	57	54	0	0
103	373	2A	Residence	No	146 Coonanbarra Road	60	55	56	53	56	53	0	0
104	411	2A	Residence	No	142 Coonanbarra Road	60	55	58.8	55.4	59	55	0	0
105	422	2A	Residence	No	140 Coonanbarra Road	60	55	58.2	54.8	58	55	0	0
143	237	1B	Residence	No	100 Burdett Street	60	55	53	50	53	50	0	0
144	224	1B	Residence	No	102 Burdett Street	60	55	53	49	53	49	0	0
145	223	1B	Residence	No	104 Burdett Street	60	55	53	50	53	50	0	0
146	228	1B	Residence	No	106 Burdett Street	60	55	53	50	53	50	0	0
147	227	1B	Residence	No	108 Burdett Street	60	55	54	51	54	51	0	0
148	213	1B	Residence	No	110 Burdett Street	60	55	54	50	54	50	0	0
149	331	1B	Residence	No	4 Spurgin Street	60	55	49	45	49	45	0	0
150	334	1B	Residence	No	6 Spurgin Street	60	55	48	45	48	45	0	0
151	330	1B	Residence	No	8 Spurgin Street	60	55	50	46	50	46	0	0
152	430	1B	Residence	No	1 Collings Street	60	55	50	46	50	46	0	0
153	427	1B	Residence	No	3 Collings Street	60	55	50	47	50	47	0	0
154	404	1B	Residence	No	5 Collings Street	60	55	51	47	51	47	0	0
155	393	1B	Residence	No	7 Collings Street	60	55	51	47	51	47	0	0
156	321	1B	Residence	No	11 Ascot Avenue	60	55	51	47	51	47	0	0
157	332	1B	Residence	No	9 Ascot Avenue	60	55	53	49	53	49	0	0
158	351	1B	Residence	No	7 Ascot Avenue	60	55	50	46	50	46	0	0
159	362	1B	Residence	No	5 Ascot Avenue	60	55	51	47	51	47	0	0
160	377	1B	Residence	No	3 Ascot Avenue	60	55	52	49	52	49	0	0
161	397	1B	Residence	No	1 Ascot Avenue	60	55	52	49	52	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
162	520	1B	Residence	No	99 Edgeworth David Avenue	60	55	50	46	50	46	0	0
163	472	1B	Residence	No	2 Collings Street	60	55	49	46	49	46	0	0
164	470	1B	Residence	No	4 Collings Street	60	55	49	45	49	45	0	0
165	460	1B	Residence	No	6 Collings Street	60	55	49	45	49	45	0	0
166	486	1B	Residence	No	6A Collings Street	60	55	50	46	50	46	0	0
167	485	1B	Residence	No	8A Collings Street	60	55	50	46	50	46	0	0
168	484	1B	Residence	No	10A Collings Street	60	55	51	47	51	47	0	0
169	453	1B	Residence	No	10 Collings Street	60	55	50	46	50	46	0	0
170	454	1B	Residence	No	12 Collings Street	60	55	51	47	51	47	0	0
171	445	1B	Residence	No	14 Collings Street	60	55	51	47	51	47	0	0
172	452	1B	Residence	No	115B Edgeworth David Avenue	60	55	51	48	51	48	0	0
173	450	1B	Residence	No	115C Edgeworth David Avenue	60	55	52	48	52	48	0	0
174	N/A	1B	Residence	No	2 Ascot Avenue	60	55	52	48	52	48	0	0
175	401	1B	Residence	No	4 Ascot Avenue	60	55	54	50	54	50	0	0
176	382	1B	Residence	No	6 Ascot Avenue	60	55	53	49	53	49	0	0
177	368	1B	Residence	No	8 Ascot Avenue	60	55	54	50	54	50	0	0
178	356	1B	Residence	No	10 Ascot Avenue	60	55	54	50	54	50	0	0
179	343	1B	Residence	No	12 Ascot Avenue	60	55	53	49	53	49	0	0
180	329	1B	Residence	No	14 Ascot Avenue	60	55	52	48	52	48	0	0
181	318	1B	Residence	No	16 Ascot Avenue	60	55	52	48	52	48	0	0
182	301	1B	Residence	No	18 Ascot Avenue	60	55	52	49	52	49	0	0
183	287	1B	Residence	No	20 Ascot Avenue	60	55	54	50	54	50	0	0
185	268	1B	Residence	No	15 Spurgin Street	60	55	54	51	54	51	0	0
186	272	1B	Residence	No	11 Spurgin Street	60	55	53	49	53	49	0	0
187	276	1B	Residence	No	9 Spurgin Street	60	55	51	48	51	48	0	0
188	278	1B	Residence	No	7 Spurgin Street	60	55	53	49	53	49	0	0
189	283	1B	Residence	No	5 Spurgin Street	60	55	52	48	52	48	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
190	262	1B	Residence	No	20A Ascot Avenue	60	55	54	50	54	50	0	0
191	235	1B	Residence	No	112A Burdett Street	60	55	50	47	50	47	0	0
192	206	1B	Residence	No	112 Burdett Street	60	55	55	51	55	51	0	0
193	209	1B	Residence	No	114 Burdett Street	60	55	55	52	55	52	0	0
194	205	1B	Residence	No	116 Burdett Street	60	55	56	52	56	52	0	0
195	207	1B	Residence	No	122 Woonona Avenue North	60	55	58	54	58	54	0	0
196	241	1B	Residence	No	120 Woonona Avenue North	60	55	57	54	57	54	0	0
197	251	1B	Residence	No	118 Woonona Avenue North	60	55	58	54	58	54	0	0
198	274	1B	Residence	No	114 Woonona Avenue North	60	55	58	54	58	54	0	0
199	288	1B	Residence	No	112 Woonona Avenue North	60	55	57	53	57	53	0	0
200	302	1A	Residence	No	110 Woonona Avenue North	60	55	56	52	56	52	0	0
202	310	1B	Residence	No	108 Woonona Avenue North	60	55	57	54	57	54	0	0
203	325	1B	Residence	No	106 Woonona Avenue North	60	55	57	53	57	53	0	0
204	337	1B	Residence	No	104 Woonona Avenue North	60	55	55	52	55	52	0	0
205	348	1B	Residence	No	102 Woonona Avenue North	60	55	56	53	56	53	0	0
206	359	1B	Residence	No	100 Woonona Avenue North	60	55	56	53	56	53	0	0
207	N/A	1B	Residence	No	98 Woonona Avenue North	60	55	56	52	56	52	0	0
208	388	1B	Residence	No	96 Woonona Avenue North	60	55	55	51	55	51	0	0
209	409	1B	Residence	No	94 Woonona Avenue North	60	55	53	49	53	49	0	0
210	431	1B	Residence	No	92 Woonona Avenue North	60	55	53	49	53	49	0	0
211	435	1B	Residence	No	90 Woonona Avenue North	60	55	52	49	52	49	0	0
212	N/A	1B	Residence	No	90 Woonona Avenue North	60	55	52	48	52	48	0	0
213	466	1B	Residence	No	88A Woonona Avenue North	60	55	52	48	52	48	0	0
214	457	1B	Residence	No	88 Woonona Avenue North	60	55	53	50	53	50	0	0
215	510	1B	Residence	No	103 Edgeworth David Avenue	60	55	48	45	48	45	0	0
216	507	1B	Residence	No	105 Edgeworth David Avenue	60	55	49	45	49	45	0	0
217	505	1B	Residence	No	107 Edgeworth David Avenue	60	55	49	46	49	46	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
218	501	1B	Residence	No	109 Edgeworth David Avenue	60	55	50	46	50	46	0	0
219	504	1B	Residence	No	111 Edgeworth David Avenue	60	55	50	47	50	47	0	0
221	495	1B	Residence	No	115 Edgeworth David Avenue	60	55	51	47	51	47	0	0
222	494	1B	Residence	No	117 Edgeworth David Avenue	60	55	51	47	51	47	0	0
223	493	1B	Residence	No	119 Edgeworth David Avenue	60	55	51	48	51	48	0	0
224	488	1B	Residence	No	121A Edgeworth David Avenue	60	55	52	49	52	49	0	0
225	389	2B	Residence	No	22 Junction Road	60	55	54	51	54	51	0	0
226	406	2B	Residence	No	2 Darri Avenue	60	55	55	51	55	51	0	0
227	383	2B	Residence	No	24 Junction Road	60	55	55	52	55	52	0	0
228	363	2B	Residence	No	4 Darri Avenue	60	55	53	49	53	49	0	0
229	342	2B	Residence	No	6 Darri Avenue	60	55	55	52	55	52	0	0
230	326	2B	Residence	No	8 Darri Avenue	60	55	54	51	54	51	0	0
231	309	2B	Residence	No	10 Darri Avenue	60	55	55	52	55	52	0	0
232	298	2B	Residence	No	35 Carrington Road	60	55	54	50	54	50	0	0
233	267	2B	Residence	No	44 Carrington Road	60	55	56	52	56	52	0	0
234	271	2B	Residence	No	42 Carrington Road	60	55	56	52	56	52	0	0
235	250	2B	Residence	No	16 Darri Avenue	60	55	55	52	55	52	0	0
236	238	2B	Residence	No	18 Darri Avenue	60	55	58	54	58	54	0	0
237	214	2B	Residence	No	20 Darri Avenue	60	55	59	55	59	55	0	0
238	198	2B	Residence	No	22 Darri Avenue	60	55	58	55	58	55	0	0
239	175	2B	Residence	No	25 Boundary Road	60	55	58	55	58	55	0	0
281	182	2B	Residence	No	23 Boundary Road	60	55	60	56	60	56	0	0
282	189	2B	Residence	No	2 Killawarra Place	60	55	60	56	60	56	0	0
283	190	2B	Residence	No	4 Killawarra Place	60	55	58	54	58	54	0	0
284	191	2B	Residence	No	6 Killawarra Place	60	55	59	56	59	56	0	0
285	188	2B	Residence	No	8 Killawarra Place	60	55	60	56	60	56	0	0
286	185	2B	Residence	No	10 Killawarra Place	60	55	57	54	57	54	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
287	186	2B	Residence	No	12 Killawarra Place	60	55	57	53	57	53	0	0
288	194	2B	Residence	No	14 Killawarra Place	60	55	57	54	57	54	0	0
289	203	2B	Residence	No	11 Killawarra Place	60	55	56	53	56	53	0	0
290	219	2B	Residence	No	9 Killawarra Place	60	55	58	55	58	55	0	0
291	222	2B	Residence	No	7 Killawarra Place	60	55	59	56	59	56	0	0
292	226	2B	Residence	No	5 Killawarra Place	60	55	60	56	60	56	0	0
293	218	2B	Residence	No	3 Killawarra Place	60	55	59	56	59	56	0	0
294	243	2B	Residence	No	36A Carrington Road	60	55	58	54	58	54	0	0
295	249	2B	Residence	No	34A Carrington Road	60	55	59	56	59	56	0	0
296	275	2B	Residence	No	40 Carrington Road	60	55	57	54	57	54	0	0
297	280	2B	Residence	No	38 Carrington Road	60	55	59	55	59	55	0	0
298	284	2B	Residence	No	36 Carrington Road	60	55	58	55	58	55	0	0
299	285	2B	Residence	No	34 Carrington Road	60	55	59	55	59	55	0	0
300	387	2B	Residence	No	4A Junction Road	60	55	56	53	56	53	0	0
301	291	2B	Residence	No	135 Coonanbarra Road	60	55	59	55	59	55	0	0
302	316	2B	Residence	No	31 Carrington Road	60	55	58	54	58	54	0	0
303	317	2B	Residence	No	29 Carrington Road	60	55	57	54	57	54	0	0
304	308	2B	Residence	No	27 Carrington Road	60	55	55	51	55	51	0	0
305	319	2B	Residence	No	25 Carrington Road	60	55	56	52	56	52	0	0
306	341	2B	Residence	No	31A Carrington Road	60	55	57	54	57	54	0	0
307	366	2B	Residence	No	18 Junction Road	60	55	54	50	54	50	0	0
308	375	2B	Residence	No	8 Junction Road	60	55	55	51	55	51	0	0
309	407	2B	Residence	No	20 Junction Road	60	55	55	52	55	52	0	0
310	413	2B	Residence	No	6 Junction Road	60	55	52	49	52	49	0	0
311	417	2B	Residence	No	4 Junction Road	60	55	57	53	57	53	0	0
312	416	2B	Residence	No	2 Junction Road	60	55	57	53	57	53	0	0
313	939	1A	Residence	No	51 Bundarra Avenue North	60	55	52	48	52	48	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
314	537	1A	Residence	No	33 Woonona Avenue North	60	55	58	55	58	55	0	0
315	526	1A	Residence	No	33A Woonona Avenue North	60	55	54	51	54	51	0	0
316	513	1A	Residence	No	82 Edgeworth David Avenue	60	55	55	51	55	51	0	0
317	511	1A	Residence	No	84 Edgeworth David Avenue	60	55	58	55	58	55	0	0
318	509	1A	Residence	No	86 Edgeworth David Avenue	60	55	60	56	60	56	0	0
319	543	1A	Residence	No	2 Douglas Avenue	60	55	60	57	60	57	0	0
320	556	1A	Residence	No	4 Douglas Avenue	60	55	62	59	62	59	0	0
321	558	1A	Residence	No	31A Woonona Avenue North	60	55	59	55	59	55	0	0
322	571	1A	Residence	No	6 Douglas Avenue	60	55	62	59	62	59	0	0
323	586	1A	Residence	No	8 Douglas Avenue	60	55	61	57	61	57	0	0
324	585	1A	Residence	No	8A Douglas Avenue	60	55	57	53	57	53	0	0
325	588	1A	Residence	No	31 Woonona Avenue North	60	55	57	54	57	54	0	0
326	610	1A	Residence	No	29C Woonona Avenue North	60	55	61	58	61	58	0	0
327	626	1A	Residence	No	1 Lochville Street	60	55	58	55	58	55	0	0
328	621	1A	Residence	No	3 Lochville Street	60	55	60	57	60	57	0	0
329	622	1A	Residence	No	5 Lochville Street	60	55	60	57	60	57	0	0
330	615	1A	Residence	No	7 Lochville Street	60	55	63	59	63	59	0	0
331	970	1A	Residence	No	49A Bundarra Avenue North	60	55	53	49	53	49	0	0
332	893	1A	Residence	No	44B Woonona Avenue North	60	55	55	51	55	51	0	0
333	820	1A	Residence	No	10 Fern Avenue	60	55	53	49	53	49	0	0
334	832	1A	Residence	No	8 Fern Avenue	60	55	54	50	54	50	0	0
335	874	1A	Residence	No	55 Bundarra Avenue North	60	55	54	50	54	50	0	0
336	918	1A	Residence	No	53 Bundarra Avenue North	60	55	53	49	53	49	0	0
338	1018	1A	Residence	No	49 Bundarra Avenue North	60	55	53	49	53	49	0	0
339	581	1A	Residence	No	80 Woonona Avenue North	60	55	56	52	56	52	0	0
340	617	1A	Residence	No	76 Woonona Avenue North	60	55	56	53	56	53	0	0
341	599	1A	Residence	No	78 Woonona Avenue North	60	55	56	52	56	52	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
342	627	1A	Residence	No	74 Woonona Avenue North	60	55	57	53	57	53	0	0
343	641	1A	Residence	No	72 Woonona Avenue North	60	55	60	56	60	56	0	0
344	660	1A	Residence	No	70 Woonona Avenue North	60	55	58	55	58	55	0	0
345	675	1A	Residence	No	68 Woonona Avenue North	60	55	59	55	59	55	0	0
346	685	1A	Residence	No	66 Woonona Avenue North	60	55	57	53	57	53	0	0
347	690	1A	Residence	No	64 Woonona Avenue North	60	55	58	54	58	54	0	0
348	739	1A	Residence	No	62 Woonona Avenue North	60	55	58	54	58	54	0	0
349	753	1A	Residence	No	60 Woonona Avenue North	60	55	58	55	58	55	0	0
350	767	1A	Residence	No	11 Fern Avenue	60	55	54	51	54	51	0	0
351	763	1A	Residence	No	58 Woonona Avenue North	60	55	61	58	61	58	0	0
352	667	1A	Residence	No	8 Lochville Street	60	55	74	70	74	70	0	0
353	669	1A	Residence	No	6 Lochville Street	60	55	64	61	64	61	0	0
355	672	1A	Residence	No	4 Lochville Street	60	55	62	59	62	59	0	0
356	665	1A	Residence	No	2 Lochville Street	60	55	62	58	62	58	0	0
357	683	1A	Residence	No	29 Woonona Avenue North	60	55	62	59	62	59	0	0
358	691	1A	Residence	No	27 Woonona Avenue North	60	55	64	60	64	60	0	0
359	737	1A	Residence	No	45A Bareena Avenue	60	55	62	59	62	59	0	0
360	746	1A	Residence	No	25 Woonona Avenue North	60	55	61	57	61	57	0	0
365	798	1A	Residence	No	56 Woonona Avenue North	60	55	58	55	58	55	0	0
366	815	1A	Residence	No	54 Woonona Avenue North	60	55	60	56	60	56	0	0
367	830	1A	Residence	No	52 Woonona Avenue North	60	55	58	55	58	55	0	0
368	849	1A	Residence	No	50 Woonona Avenue North	60	55	58	54	58	54	0	0
369	859	1A	Residence	No	48 Woonona Avenue North	60	55	56	52	56	52	0	0
370	908	1A	Residence	No	44A Woonona Avenue North	60	55	57	53	57	53	0	0
371	917	1A	Residence	No	44 Woonona Avenue North	60	55	54	50	54	50	0	0
372	881	1A	Residence	No	46 Woonona Avenue North	60	55	57	53	57	53	0	0
374	936	1A	Residence	No	42 Woonona Avenue North	60	55	60	56	60	56	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
375	776	1A	Residence	No	9A Fern Avenue	60	55	53	50	53	50	0	0
376	852	2A	Residence	No	6 Burns Road	60	55	55	51	55	51	0	0
377	863	2A	Residence	No	4 Burns Road	60	55	56	52	56	52	0	0
379	872	2A	Residence	Yes (2)	2 Burns Road	60	55	62	58	62	58	0	0
380	858	2A	Residence	Yes (2)	4-5/2 Burns Road	60	55	64	60	64	60	0	0
381	822	2A	Residence	No	4B Burns Road	60	55	57	53	57	53	0	0
383	821	2A	Residence	No	4A Burns Road	60	55	62	58	62	58	0	0
384	770	2A	Residence	No	24 Bareena Avenue	60	55	57	53	57	53	0	0
385	775	2A	Residence	No	26 Bareena Avenue	60	55	59	55	59	55	0	0
386	785	2A	Residence	No	28 Bareena Avenue	60	55	62.7	58.3	63	58	0	0
387	727	2A	Residence	No	112 Coonanbarra Road	60	55	57	53	57	53	0	0
388	730	2A	Residence	No	31 Bareena Avenue	60	55	59	55	59	55	0	0
389	732	2A	Residence	No	33 Bareena Avenue	60	55	58	55	58	55	0	0
390	735	2A	Residence	No	37B Bareena Avenue	60	55	61	57	61	57	0	0
391	722	2A	Residence	No	114 Coonanbarra Road	60	55	58	55	58	55	0	0
392	695	2B	Residence	No	116 Coonanbarra Road	60	55	58	54	58	54	0	0
393	689	2A	Residence	No	116A Coonanbarra Road	60	55	58	54	58	54	0	0
394	681	2A	Residence	No	118 Coonanbarra Road	60	55	60	56	60	56	0	0
395	673	2A	Residence	No	118A Coonanbarra Road	60	55	60	56	60	56	0	0
396	650	2A	Residence	No	118B Coonanbarra Road	60	55	61	57	61	57	0	0
397	618	2A	Residence	No	120 Coonanbarra Road	60	55	59	55	59	55	0	0
398	609	2A	Residence	No	21 Lochville Street	60	55	59	56	59	56	0	0
399	584	2A	Residence	No	124 Coonanbarra Road	60	55	60	56	60	56	0	0
400	567	2A	Residence	No	126 Coonanbarra Road	60	55	58	54	58	54	0	0
401	552	2A	Residence	No	128 Coonanbarra Road	60	55	57	53	57	53	0	0
402	541	2A	Residence	No	130 Coonanbarra Road	60	55	59	55	59	55	0	0
403	506	2A	Residence	No	132 Coonanbarra Road	60	55	58	54	58	54	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
404	498	2A	Residence	No	134 Coonanbarra Road	60	55	57	53	57	53	0	0
405	469	2B	Residence	No	117 Coonanbarra Road	60	55	57	54	57	54	0	0
406	500	2A	Residence	No	113A Coonanbarra Road	60	55	57	54	57	54	0	0
407	489	2B	Residence	No	115 Coonanbarra Road	60	55	57	54	57	54	0	0
408	538	2B	Residence	No	111 Coonanbarra Road	60	55	56	53	56	53	0	0
409	557	2B	Residence	No	109 Coonanbarra Road	60	55	57	53	57	53	0	0
410	572	2B	Residence	No	107 Coonanbarra Road	60	55	56	53	56	53	0	0
411	590	2B	Residence	No	105 Coonanbarra Road	60	55	58	54	58	54	0	0
413	743	2A	Residence	No	37A Bareena Avenue	60	55	63	60	63	60	0	0
415	804	2B	Residence	No	108 Coonanbarra Road	60	55	56	52	56	52	0	0
416	788	2B	Residence	No	110 Coonanbarra Road	60	55	56	52	56	52	0	0
417	755	2B	Residence	No	20 Bareena Avenue	60	55	58	54	58	54	0	0
418	762	2A	Residence	No	22 Bareena Avenue	60	55	56	53	56	53	0	0
419	522	1B	Residence	No	1 Ingalara Avenue	60	55	49	46	49	46	0	0
420	533	1B	Residence	No	3 Ingalara Avenue	60	55	48	45	48	45	0	0
421	549	1B	Residence	No	5 Ingalara Avenue	60	55	49	46	49	46	0	0
422	564	1B	Residence	No	7 Ingalara Avenue	60	55	49	45	49	45	0	0
423	583	1B	Residence	No	9 Ingalara Avenue	60	55	48	44	48	44	0	0
424	614	1B	Residence	No	15 Ingalara Avenue	60	55	50	46	50	46	0	0
425	598	1B	Residence	No	11 Ingalara Avenue	60	55	49	46	49	46	0	0
426	629	1B	Residence	No	17 Ingalara Avenue	60	55	49	45	49	45	0	0
427	646	1B	Residence	No	19 Ingalara Avenue	60	55	49	45	49	45	0	0
428	662	1B	Residence	No	21 Ingalara Avenue	60	55	49	45	49	45	0	0
429	677	1B	Residence	No	23 Ingalara Avenue	60	55	51	48	51	48	0	0
430	750	1B	Residence	No	25 Ingalara Avenue	60	55	49	45	49	45	0	0
431	757	1B	Residence	No	27 Ingalara Avenue	60	55	50	46	50	46	0	0
432	772	1B	Residence	No	29 Ingalara Avenue	60	55	50	46	50	46	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
433	796	1B	Residence	No	31-33 Ingalara Avenue	60	55	49	46	49	46	0	0
434	523	1B	Residence	No	2 Churchill Avenue	60	55	51	47	51	47	0	0
435	531	1B	Residence	No	4 Churchill Avenue	60	55	50	46	50	46	0	0
436	545	1B	Residence	No	6 Churchill Avenue	60	55	50	46	50	46	0	0
437	N/A	1B	Residence	No	8 Churchill Avenue	60	55	50	46	50	46	0	0
438	577	1B	Residence	No	10 Churchill Avenue	60	55	51	47	51	47	0	0
439	596	1B	Residence	No	12 Churchill Avenue	60	55	50	46	50	46	0	0
440	611	1B	Residence	No	14 Churchill Avenue	60	55	51	47	51	47	0	0
441	625	1B	Residence	No	16 Churchill Avenue	60	55	50	46	50	46	0	0
442	636	1B	Residence	No	18 Churchill Avenue	60	55	52	48	52	48	0	0
443	658	1B	Residence	No	20 Churchill Avenue	60	55	50	47	50	47	0	0
444	674	1B	Residence	No	22 Churchill Avenue	60	55	51	47	51	47	0	0
445	684	1B	Residence	No	24 Churchill Avenue	60	55	51	47	51	47	0	0
446	748	1B	Residence	No	26 Churchill Avenue	60	55	52	49	52	49	0	0
447	756	1B	Residence	No	28 Churchill Avenue	60	55	53	49	53	49	0	0
448	783	1B	Residence	No	32 Churchill Avenue	60	55	52	49	52	49	0	0
449	803	1B	Residence	No	34 Churchill Avenue	60	55	53	49	53	49	0	0
450	812	1B	Residence	No	5 Fern Avenue	60	55	52	48	52	48	0	0
451	817	1B	Residence	No	35 Ingalara Avenue	60	55	50	46	50	46	0	0
452	864	1B	Residence	No	64 Bundarra Avenue North	60	55	51	47	51	47	0	0
453	878	1B	Residence	No	62 Bundarra Avenue North	60	55	51	47	51	47	0	0
454	916	1B	Residence	No	58-60 Bundarra Avenue North	60	55	51	47	51	47	0	0
455	946	1B	Residence	No	56 Bundarra Avenue North	60	55	51	47	51	47	0	0
456	1014	1B	Residence	No	54 Bundarra Avenue North	60	55	51	48	51	48	0	0
457	1038	1B	Residence	No	50 Bundarra Avenue North	60	55	52	48	52	48	0	0
458	566	1A	Residence	No	82 Woonona Avenue North	60	55	55	52	55	52	0	0
459	547	1A	Residence	No	84 Woonona Avenue North	60	55	55	51	55	51	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
460	532	1A	Residence	No	86 Woonona Avenue North	60	55	53	49	53	49	0	0
461	525	1A	Residence	No	78 Edgeworth David Avenue	60	55	54	50	54	50	0	0
462	524	1B	Residence	No	76 Edgeworth David Avenue	60	55	50	47	50	47	0	0
463	515	1B	Residence	No	74 Edgeworth David Avenue	60	55	51	48	51	48	0	0
464	514	1B	Residence	No	72 Edgeworth David Avenue	60	55	50	46	50	46	0	0
465	518	1B	Residence	No	70 Edgeworth David Avenue	60	55	50	47	50	47	0	0
466	539	1B	Residence	No	1A Churchill Avenue	60	55	50	46	50	46	0	0
467	554	1B	Residence	No	1 Churchill Avenue	60	55	53	49	53	49	0	0
468	569	1B	Residence	No	3 Churchill Avenue	60	55	52	49	52	49	0	0
469	587	1B	Residence	No	5 Churchill Avenue	60	55	54	50	54	50	0	0
470	606	1B	Residence	No	7 Churchill Avenue	60	55	52	49	52	49	0	0
471	N/A	1B	Residence	No	9 Churchill Avenue	60	55	51	48	51	48	0	0
472	635	1B	Residence	No	11 Churchill Avenue	60	55	55	51	55	51	0	0
473	648	1B	Residence	No	15 Churchill Avenue	60	55	54	50	54	50	0	0
474	670	1B	Residence	No	17 Churchill Avenue	60	55	55	51	55	51	0	0
475	678	1B	Residence	No	19 Churchill Avenue	60	55	54	50	54	50	0	0
476	687	1B	Residence	No	21 Churchill Avenue	60	55	55	51	55	51	0	0
477	742	1B	Residence	No	23 Churchill Avenue	60	55	54	50	54	50	0	0
478	754	1B	Residence	No	25 Churchill Avenue	60	55	54	50	54	50	0	0
479	766	1B	Residence	No	27 Churchill Avenue	60	55	54	50	54	50	0	0
480	784	1B	Residence	No	29 Churchill Avenue	60	55	55	51	55	51	0	0
481	835	1A	Residence	No	6 Fern Avenue	60	55	51	47	51	47	0	0
482	838	1B	Residence	No	63 Bundarra Avenue North	60	55	52	48	52	48	0	0
483	853	1B	Residence	No	61 Bundarra Avenue North	60	55	53	49	53	49	0	0
484	867	1A	Residence	No	59 Bundarra Avenue North	60	55	51	47	51	47	0	0
485	885	1A	Residence	No	57A Bundarra Avenue North	60	55	52	48	52	48	0	0
486	901	1A	Residence	No	57 Bundarra Avenue North	60	55	53	49	53	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
487	945	1A	Residence	No	53 Bundarra Avenue North	60	55	52	48	52	48	0	0
488	699	2B	Residence	No	19 Bareena Avenue	60	55	55	52	55	52	0	0
489	793	2B	Residence	No	16A Burns Road	60	55	52	49	52	49	0	0
490	N/A	2B	Residence	No	16 Burns Road	60	55	53	49	53	49	0	0
491	752	2B	Residence	No	81 Coonanbarra Road	60	55	53	49	53	49	0	0
492	738	2B	Residence	No	83 Coonanbarra Road	60	55	53	50	53	50	0	0
493	734	2B	Residence	No	16A Bareena Avenue	60	55	55	51	55	51	0	0
494	712	2B	Residence	No	25 Bareena Avenue	60	55	56	52	56	52	0	0
495	702	1A	Residence	No	23 Bareena Avenue	60	55	56	52	56	52	0	0
496	696	2B	Residence	No	23A Bareena Avenue	60	55	57	54	57	54	0	0
497	657	2B	Residence	No	26 Lochville Street	60	55	57	54	57	54	0	0
498	654	2B	Residence	No	28 Lochville Street	60	55	57	53	57	53	0	0
499	653	2B	Residence	No	30 Lochville Street	60	55	56	53	56	53	0	0
500	601	2B	Residence	No	29 Lochville Street	60	55	54	51	54	51	0	0
501	595	2B	Residence	No	27 Lochville Street	60	55	53	50	53	50	0	0
502	597	2B	Residence	No	25 Lochville Street	60	55	57	54	57	54	0	0
504	448	2B	Residence	No	9 Junction Road	60	55	54	50	54	50	0	0
505	451	2B	Residence	No	7 Junction Road	60	55	57	53	57	53	0	0
506	458	2B	Residence	No	5 Junction Road	60	55	55	51	55	51	0	0
507	461	2B	Residence	No	3 Junction Road	60	55	54	51	54	51	0	0
508	499	2B	Residence	No	113 Coonanbarra Road	60	55	55	52	55	52	0	0
509	608	2B	Residence	No	23 Lochville Street	60	55	57	53	57	53	0	0
510	637	2B	Residence	No	22 Lochville Street	60	55	58	55	58	55	0	0
511	655	2B	Residence	No	99 Coonanbarra Road	60	55	57	53	57	53	0	0
512	664	2B	Residence	No	97 Coonanbarra Road	60	55	59	56	59	56	0	0
513	679	2B	Residence	No	95 Coonanbarra Road	60	55	59	56	59	56	0	0
514	686	2B	Residence	No	93 Coonanbarra Road	60	55	58	54	58	54	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
515	694	2B	Residence	No	91 Coonanbarra Road	60	55	57	54	57	54	0	0
516	710	2B	Residence	No	89 Coonanbarra Road	60	55	57	53	57	53	0	0
517	711	2B	Residence	No	27 Bareena Avenue	60	55	57	53	57	53	0	0
518	747	2B	Residence	No	83 Coonanbarra Road	60	55	55	52	55	52	0	0
519	N/A	2B	Residence	No	81A Coonanbarra Road	60	55	57	53	57	53	0	0
520	N/A	2B	Residence	No	14 Burns Road	60	55	57	54	57	54	0	0
521	834	2B	Residence	No	12 Burns Road	60	55	55	51	55	51	0	0
522	847	2B	Residence	No	10 Burns Road	60	55	55	52	55	52	0	0
523	589	2B	Residence	No	33 Lochville Street	60	55	54	51	54	51	0	0
524	447	2B	Residence	No	15 Junction Road	60	55	56	53	56	53	0	0
525	449	2B	Residence	No	11 Junction Road	60	55	52	49	52	49	0	0
526	594	2B	Residence	No	31 Lochville Street	60	55	54	51	54	51	0	0
527	668	2B	Residence	No	32 Lochville Street	60	55	55	51	55	51	0	0
528	703	2B	Residence	No	21 Bareena Avenue	60	55	54	51	54	51	0	0
529	731	2B	Residence	No	16 Bareena Avenue	60	55	52	48	52	48	0	0
530	N/A	2B	Residence	No	16B Bareena Avenue	60	55	53	49	53	49	0	0
531	787	2B	Residence	No	18 Burns Road	60	55	53	49	53	49	0	0
545	1113	2A	Residence	No	28 Woonona Avenue North	60	55	58	54	58	54	0	0
546	1098	2A	Residence	No	28 Woonona Avenue North	60	55	59	55	59	55	0	0
547	1108	2A	Residence	No	37-41 Millewa Avenue	60	55	57	53	57	53	0	0
550	966	2A	Residence	No	1-3 Burns Road	60	55	62	58	62	58	0	0
551	951	2A	Residence	Yes (2)	1-3 Burns Road	60	55	61	57	61	57	0	0
555	1074	2A	Residence	No	12 Woniora Avenue	60	55	53	49	53	49	0	0
556	1055	2A	Residence	No	12 Woniora Avenue	60	55	54	50	54	50	0	0
557	1037	2A	Residence	No	12 Woniora Avenue	60	55	56	53	56	53	0	0
560	976	2B	Residence	No	1-9 Woniora Avenue	60	55	57	53	57	53	0	0
561	902	2B	Residence	No	11 Burns Road	60	55	56	53	56	53	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
562	919	2A	Residence	No	9 Burns Road	60	55	55	51	55	51	0	0
586	1164	2B	Residence	No	35 Millewa Avenue	60	55	51	47	51	47	0	0
587	1019	2B	Residence	No	8 Woniara Avenue	60	55	54	50	54	50	0	0
588	1041	2B	Residence	No	8 Woniara Avenue	60	55	53	49	53	49	0	0
592	960	2B	Residence	No	67 Coonanbarra Road	60	55	54	50	54	50	0	0
594	927	2B	Residence	No	71 Coonanbarra Road	60	55	53	49	53	49	0	0
595	907	2B	Residence	No	73 Coonanbarra Road	60	55	54	50	54	50	0	0
596	892	2B	Residence	No	75 Coonanbarra Road	60	55	54	50	54	50	0	0
597	877	2B	Residence	No	75 Coonanbarra Road	60	55	54	50	54	50	0	0
599	854	2B	Residence	No	79 Coonanbarra Road	60	55	55	51	55	51	0	0
601	984	2B	Residence	No	86-90 Coonanbarra Road	60	55	53	49	53	49	0	0
602	968	2B	Residence	No	92 Coonanbarra Road	60	55	53	50	53	50	0	0
603	958	2B	Residence	No	94 Coonanbarra Road	60	55	51	47	51	47	0	0
604	947	2B	Residence	No	96 Coonanbarra Road	60	55	52	48	52	48	0	0
605	923	2B	Residence	No	98 Coonanbarra Road	60	55	53	49	53	49	0	0
606	909	2B	Residence	No	100 Coonanbarra Road	60	55	53	49	53	49	0	0
607	897	2B	Residence	No	102 Coonanbarra Road	60	55	53	49	53	49	0	0
608	888	2B	Residence	No	104 Coonanbarra Road	60	55	54	50	54	50	0	0
609	866	2B	Residence	No	106 Coonanbarra Road	60	55	55	51	55	51	0	0
610	900	2B	Residence	No	15 Burns Road	60	55	56	52	56	52	0	0
611	964	2B	Residence	No	1-9 Woniara Avenue	60	55	53	50	53	50	0	0
612	971	2B	Residence	No	1-9 Woniara Avenue	60	55	56	52	56	52	0	0
613	999	2B	Residence	No	2 Woniara Avenue	60	55	51	47	51	47	0	0
614	1011	2B	Residence	No	4-6 Woniara Avenue	60	55	53	50	53	50	0	0
615	1031	2B	Residence	No	23 Neringah Avenue North	60	55	52	49	52	49	0	0
616	1042	2B	Residence	No	21 Neringah Avenue North	60	55	52	48	52	48	0	0
617	1058	2B	Residence	No	17-19 Neringah Avenue North	60	55	52	49	52	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
618	1081	2B	Residence	No	25-29 Millewa Avenue	60	55	51	47	51	47	0	0
619	1170	2B	Residence	No	25-29 Millewa Avenue	60	55	51	47	51	47	0	0
620	1103	2B	Residence	No	25-29 Millewa Avenue	60	55	52	49	52	49	0	0
639	1161	1A	Residence	No	93 Alexandria Parade	60	55	64	60	64	60	0	0
640	1147	1A	Residence	No	1 Benson Close	60	55	60	56	60	56	0	0
641	1106	1A	Residence	No	3 Benson Close	60	55	60	56	60	56	0	0
642	1088	1A	Residence	No	3A Benson Close	60	55	64	60	64	60	0	0
643	1053	1A	Residence	No	5 Benson Close	60	55	64	60	64	60	0	0
644	1071	1A	Residence	No	3B Benson Close	60	55	55	51	55	51	0	0
645	1060	1A	Residence	No	43A Bundarra Avenue North	60	55	55	51	55	51	0	0
646	1079	1A	Residence	No	41A Bundarra Avenue North	60	55	54	50	54	50	0	0
647	1160	1A	Residence	No	91 Alexandria Parade	60	55	56	52	56	52	0	0
648	1145	1A	Residence	No	37 Bundarra Avenue North	60	55	56	52	56	52	0	0
649	1111	1A	Residence	No	39 Bundarra Avenue North	60	55	56	52	56	52	0	0
650	1096	1A	Residence	No	41 Bundarra Avenue North	60	55	54	50	54	50	0	0
651	1080	1A	Residence	No	43 Bundarra Avenue North	60	55	54	50	54	50	0	0
652	1026	1A	Residence	No	7 Benson Close	60	55	57	53	57	53	0	0
653	1017	1A	Residence	No	7A Benson Close	60	55	64	60	64	60	0	0
654	1039	1A	Residence	No	47 Bundarra Avenue North	60	55	55	51	55	51	0	0
655	1061	1A	Residence	No	45 Bundarra Avenue North	60	55	53	49	53	49	0	0
656	972	1A	Residence	No	9-11 Benson Close	60	55	61	57	61	57	0	0
657	1005	1A	Residence	No	9-11 Benson Close	60	55	56	53	56	53	0	0
658	1022	1A	Residence	No	47A Bundarra Avenue North	60	55	55	51	55	51	0	0
710	1155	1A	Residence	No	89 Alexandria Parade	60	55	56	52	56	52	0	0
711	1159	1A	Residence	No	87A Alexandria Parade	60	55	54	50	54	50	0	0
712	1132	1B	Residence	No	44 Bundarra Avenue North	60	55	54	50	54	50	0	0
713	1166	1B	Residence	No	85 Alexandria Parade	60	55	53	50	53	50	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
714	1158	1B	Residence	No	83 Alexandria Parade	60	55	54	50	54	50	0	0
715	1130	1B	Residence	No	87 Alexandria Parade	60	55	52	48	52	48	0	0
716	1104	1B	Residence	No	46A Bundarra Avenue North	60	55	51	47	51	47	0	0
717	1077	1B	Residence	No	48 Bundarra Avenue North	60	55	53	49	53	49	0	0
718	1097	1B	Residence	No	46 Bundarra Avenue North	60	55	54	50	54	50	0	0
719	1844	4A	Residence	Yes (1)	1 Aaron Place	60	55	64	60	64	60	0	0
720	1828	4A	Residence	No	1 Aaron Place	60	55	61	57	61	57	0	0
721	1787	4A	Residence	No	1740 Pacific Highway	60	55	63	59	63	59	0	0
722	1777	4A	Residence	No	1740 Pacific Highway	60	55	62	58	62	58	0	0
723	1754	4A	Residence	No	1740 Pacific Highway	60	55	59	55	59	55	0	0
724	1654	4A	Residence	No	1740 Pacific Highway	60	55	61	57	61	57	0	0
725	1622	4A	Residence	Yes (4)	1740 Pacific Highway	60	55	65	61	65	61	0	0
726	1619	4A	Residence	No	1740 Pacific Highway	60	55	61	57	61	57	0	0
727	1755	4A	Residence	No	1740 Pacific Highway	60	55	57	53	57	53	0	0
728	1778	4A	Residence	No	1740 Pacific Highway	60	55	56	53	56	53	0	0
729	1784	4A	Residence	No	1740 Pacific Highway	60	55	57	54	57	54	0	0
730	1839	4A	Residence	No	1 Aaron Place	60	55	61	58	61	58	0	0
731	1827	4B	Residence	Yes (6)	1 Aaron Place	60	55	66	62	66	62	0	0
732	1657	4A	Residence	No	1740 Pacific Highway	60	55	58	54	58	54	0	0
733	1627	4A	Residence	No	1740 Pacific Highway	60	55	55	52	55	52	0	0
734	1605	4B	Residence	Yes (6)	1740 Pacific Highway	60	55	71	67	71	67	0	0
735	1856	4A	Residence	Yes (4)	1 Aaron Place	60	55	70	67	70	67	0	0
736	1843	4B	Residence	Yes (4)	1 Aaron Place	60	55	69	66	69	66	0	0
737	1614	4B	Residence	No	1740 Pacific Highway	60	55	62	58	62	58	0	0
738	1606	4B	Residence	Yes (4)	1740 Pacific Highway	60	55	72	69	72	69	0	0
739	1616	4B	Residence	Yes (3)	1740 Pacific Highway	60	55	67	64	67	64	0	0
740	1780	4B	Residence	No	1740 Pacific Highway	60	55	61	58	61	58	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
741	1783	4B	Residence	No	1740 Pacific Highway	60	55	59	56	59	56	0	0
742	1829	4B	Residence	Yes (3)	1 Aaron Place	60	55	72	68	72	68	0	0
743	1575	1C	Residence	Yes (4)	1707 Pacific Highway	60	55	73	69	73	69	0	0
769	1577	1C	Residence	Yes (4)	1709 Pacific Highway	60	55	73	69	73	69	0	0
791	1781	5A	Residence	No	13 Kingsley Close	60	55	63	59	63	59	0	0
792	1782	5A	Residence	No	14 Kingsley Close	60	55	59	56	59	56	0	0
793	1786	5A	Residence	No	15 Kingsley Close	60	55	57	53	57	53	0	0
794	1790	5A	Residence	No	16 Kingsley Close	60	55	55	51	55	51	0	0
795	1789	5A	Residence	No	17 Kingsley Close	60	55	54	50	54	50	0	0
796	1791	5A	Residence	No	18 Kingsley Close	60	55	54	50	54	50	0	0
797	1800	5A	Residence	No	10 Kingsley Close	60	55	60	56	60	56	0	0
798	1801	5A	Residence	No	9 Kingsley Close	60	55	57	54	57	54	0	0
799	1817	5A	Residence	No	8 Kingsley Close	60	55	55	52	55	52	0	0
800	1816	5A	Residence	No	7 Kingsley Close	60	55	55	51	55	51	0	0
802	1819	5A	Residence	No	13A Hewitt Avenue	60	55	58	55	58	55	0	0
803	1823	5A	Residence	No	15B Hewitt Avenue	60	55	53	50	53	50	0	0
804	1824	5A	Residence	No	17A Hewitt Avenue	60	55	55	51	55	51	0	0
805	1833	5A	Residence	No	13 Hewitt Avenue	60	55	57	53	57	53	0	0
806	1850	5A	Residence	No	9 Hewitt Avenue	60	55	56	53	56	53	0	0
807	1852	5A	Residence	No	11 Hewitt Avenue	60	55	56	52	56	52	0	0
808	1853	5A	Residence	No	15 Hewitt Avenue	60	55	55	51	55	51	0	0
809	1851	5A	Residence	No	17 Hewitt Avenue	60	55	55	51	55	51	0	0
810	1854	5A	Residence	No	19 Hewitt Avenue	60	55	54	50	54	50	0	0
811	2022	5A	Residence	No	1 Havilah Avenue	60	55	55	51	55	51	0	0
812	1986	5A	Residence	No	2 Havilah Avenue	60	55	58	55	58	55	0	0
813	1996	5A	Residence	No	4 Havilah Avenue	60	55	56	52	56	52	0	0
817	1998	5A	Residence	Yes (2)	27 Pennant Hills Road	60	55	73	70	73	70	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
823	1792	5A	Residence	No	19 Kingsley Close	60	55	54	50	54	50	0	0
824	1795	5B	Residence	No	20 Kingsley Close	60	55	53	49	53	49	0	0
825	1794	5B	Residence	No	21 Kingsley Close	60	55	52	48	52	48	0	0
826	1785	5B	Residence	No	15 Eastbourne Avenue	60	55	54	50	54	50	0	0
827	1818	5A	Residence	No	6 Kingsley Close	60	55	54	50	54	50	0	0
828	1814	5B	Residence	No	5 Kingsley Close	60	55	54	50	54	50	0	0
829	1812	5B	Residence	No	4 Kingsley Close	60	55	53	49	53	49	0	0
830	1813	5B	Residence	No	3 Kingsley Close	60	55	54	50	54	50	0	0
831	1805	5B	Residence	No	2 Kingsley Close	60	55	54	50	54	50	0	0
832	1815	5B	Residence	No	1 Kingsley Close	60	55	52	49	52	49	0	0
833	1809	5B	Residence	No	3 Exeter Road	60	55	51	48	51	48	0	0
834	1810	5B	Residence	No	5 Exeter Road	60	55	52	48	52	48	0	0
835	1821	5A	Residence	No	19A Hewitt Avenue	60	55	54	50	54	50	0	0
836	1825	5B	Residence	No	25A Hewitt Avenue	60	55	53	50	53	50	0	0
837	1826	5B	Residence	No	27A Hewitt Avenue	60	55	51	47	51	47	0	0
838	1811	5B	Residence	No	17 Eastbourne Avenue	60	55	50	47	50	47	0	0
839	1820	5B	Residence	No	19 Eastbourne Avenue	60	55	52	48	52	48	0	0
840	1831	5B	Residence	No	21 Eastbourne Avenue	60	55	52	49	52	49	0	0
842	1848	5A	Residence	No	21 Hewitt Avenue	60	55	55	51	55	51	0	0
843	1840	5B	Residence	No	25 Hewitt Avenue	60	55	50	47	50	47	0	0
844	2037	5B	Residence	No	27A Hewitt Avenue	60	55	52	48	52	48	0	0
845	2053	5B	Residence	No	29 Hewitt Avenue	60	55	52	48	52	48	0	0
846	2069	5B	Residence	No	23 Eastbourne Avenue	60	55	51	48	51	48	0	0
847	2033	5A	Residence	No	3 Havilah Avenue	60	55	56	52	56	52	0	0
848	2039	5A	Residence	No	5 Havilah Avenue	60	55	56	53	56	53	0	0
849	2047	5A	Residence	No	2 Hewitt Avenue	60	55	53	49	53	49	0	0
850	2063	5B	Residence	No	4 Hewitt Avenue	60	55	53	49	53	49	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
851	2077	5B	Residence	No	6 Hewitt Avenue	60	55	53	49	53	49	0	0
852	2112	5B	Residence	No	8 Hewitt Avenue	60	55	52	49	52	49	0	0
853	2125	5B	Residence	No	10 Hewitt Avenue	60	55	51	47	51	47	0	0
855	2066	5A	Residence	No	7 Havilah Avenue	60	55	56	53	56	53	0	0
856	2081	5A	Residence	No	9 Havilah Avenue	60	55	53	49	53	49	0	0
857	2118	5B	Residence	No	11 Havilah Avenue	60	55	54	50	54	50	0	0
858	2131	5B	Residence	No	15 Havilah Avenue	60	55	55	51	55	51	0	0
859	2140	5B	Residence	No	17 Havilah Avenue	60	55	54	50	54	50	0	0
862	1802	5B	Residence	No	9 Exeter Road	60	55	51	47	51	47	0	0
863	1804	5B	Residence	No	11 Exeter Road	60	55	49	45	49	45	0	0
873	1803	5B	Residence	No	2 Eastbourne Avenue	60	55	51	48	51	48	0	0
878	2124	5B	Residence	No	8 Eastbourne Avenue	60	55	49	45	49	45	0	0
886	2127	5B	Residence	No	35 Hewitt Avenue	60	55	51	47	51	47	0	0
936	1723	5B	Residence	No	25 Lucinda Avenue	60	55	56	52	56	52	0	0
937	1760	5B	Residence	No	33A Lucinda Avenue	60	55	57	53	57	53	0	0
938	1750	5B	Residence	No	33A Lucinda Avenue	60	55	56	53	56	53	0	0
939	1722	5B	Residence	No	33 Lucinda Avenue	60	55	54	50	54	50	0	0
940	1757	5B	Residence	No	33A Lucinda Avenue	60	55	55	52	55	52	0	0
941	1735	5B	Residence	No	37A Lucinda Avenue	60	55	51	47	51	47	0	0
942	1766	5B	Residence	No	7 Eastbourne Avenue	60	55	54	50	54	50	0	0
943	1772	5B	Residence	No	7 Eastbourne Avenue	60	55	51	48	51	48	0	0
944	1767	5B	Residence	No	1 Eastbourne Avenue	60	55	54	50	54	50	0	0
945	1759	5B	Residence	No	1 Eastbourne Avenue	60	55	53	49	53	49	0	0
946	1734	5B	Residence	No	39 Lucinda Avenue	60	55	53	49	53	49	0	0
947	1737	5B	Residence	No	41 Lucinda Avenue	60	55	51	48	51	48	0	0
948	1745	5B	Residence	No	43 Lucinda Avenue	60	55	49	45	49	45	0	0
949	1769	5B	Residence	No	2 Seaton Avenue	60	55	51	47	51	47	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
951	1771	5B	Residence	No	35 Lucinda Avenue	60	55	50	46	50	46	0	0
957	1749	5B	Residence	No	45 Lucinda Avenue	60	55	49	45	49	45	0	0
958	1753	5B	Residence	No	47 Lucinda Avenue	60	55	49	45	49	45	0	0
959	1758	5B	Residence	No	49 Lucinda Avenue	60	55	49	46	49	46	0	0
965	1694	5B	Residence	No	24 Lucinda Avenue	60	55	52	48	52	48	0	0
966	1691	5B	Residence	No	28 Lucinda Avenue	60	55	52	48	52	48	0	0
967	1696	5B	Residence	No	30 Lucinda Avenue	60	55	51	47	51	47	0	0
977	1703	5B	Residence	No	7 The Glade Walk	60	55	51	47	51	47	0	0
995	1693	5B	Residence	No	11 The Glade Walk	60	55	51	47	51	47	0	0
996	1719	5B	Residence	No	9 The Glade Walk	60	55	51	47	51	47	0	0
1018	1665	5B	Residence	No	22 Lucinda Avenue	60	55	53	49	53	49	0	0
1019	1705	5B	Residence	No	2 The Glade Walk	60	55	52	48	52	48	0	0
1020	1706	5B	Residence	No	4 The Glade Walk	60	55	49	45	49	45	0	0
1021	1704	5B	Residence	No	6 The Glade Walk	60	55	47	43	47	43	0	0
1022	1669	5B	Residence	No	8 The Glade Walk	60	55	48	44	48	44	0	0
1023	1667	5B	Residence	No	10 The Glade Walk	60	55	44	40	44	40	0	0
1024	1664	5B	Residence	No	12 The Glade Walk	60	55	48	44	48	44	0	0
1025	1662	5B	Residence	No	14 The Glade Walk	60	55	47	43	47	43	0	0
1026	1660	5B	Residence	No	16 The Glade Walk	60	55	49	45	49	45	0	0
1028	1617	5A	Residence	No	7 Lucinda Avenue	60	55	65	62	65	62	0	0
1029	1626	5A	Residence	No	9 Lucinda Avenue	60	55	62	58	62	58	0	0
1030	1648	5A	Residence	No	11 Lucinda Avenue	60	55	59	56	59	56	0	0
1031	1656	5A	Residence	No	11A Lucinda Avenue	60	55	65	61	65	61	0	0
1032	1661	5A	Residence	No	15 Lucinda Avenue	60	55	59	55	59	55	0	0
1033	1725	5A	Residence	No	19 Lucinda Avenue	60	55	62	58	62	58	0	0
1034	1726	5A	Residence	No	21 Lucinda Avenue	60	55	62	58	62	58	0	0
1035	1752	5A	Residence	No	27 Lucinda Avenue	60	55	59	56	59	56	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
3017	1990	T	Residence	No	2 Edwards Road	60	55	59	56	59	56	0	0
3018	1980	3	Residence	No	4 Edwards Road	60	55	54	51	54	51	0	0
3019	1994	3	Residence	No	8 Edwards Road	60	55	55	52	55	52	0	0
3020	1993	3	Residence	No	8 Edwards Road	60	55	55	52	55	52	0	0
3021	1976	3	Residence	No	8A Edwards Road	60	55	52	49	52	49	0	0
3022	1915	3	Residence	No	46 Russell Avenue	60	55	56	53	56	53	0	0
3023	1920	3	Residence	No	50 Russell Avenue	60	55	58	55	58	55	0	0
3024	1930	3	Residence	No	50B Russell Avenue	60	55	55	51	55	51	0	0
3025	1972	3	Residence	No	50A Russell Avenue	60	55	55	51	55	51	0	0
3026	1955	3	Residence	No	8A Edwards Road	60	55	51	47	51	47	0	0
3028	1897	3	Residence	No	59 Russell Avenue	60	55	67	63	67	63	0	0
3029	1908	3	Residence	No	55 Russell Avenue	60	55	69	66	69	66	0	0
3030	1894	3	Residence	No	44 Russell Avenue	60	55	53	50	53	50	0	0
3031	1880	3	Residence	No	42 Russell Avenue	60	55	54	51	54	51	0	0
3032	1913	3	Residence	No	42 Russell Avenue	60	55	56	52	56	52	0	0
3033	1929	3	Residence	No	38 Russell Avenue	60	55	53	50	53	50	0	0
3034	1889	3	Residence	No	45A Russell Avenue	60	55	54	50	54	50	0	0
3035	1899	3	Residence	No	53 Russell Avenue	60	55	60	56	60	56	0	0
3037	1898	3	Residence	No	51 Russell Avenue	60	55	57	53	57	53	0	0
3038	1902	3	Residence	No	49 Russell Avenue	60	55	56	53	56	53	0	0
3039	1884	3	Residence	No	47 Russell Avenue	60	55	56	53	56	53	0	0
3040	1888	3	Residence	No	45B Russell Avenue	60	55	52	49	52	49	0	0
3041	1901	3	Residence	No	49 Russell Avenue	60	55	57	54	57	54	0	0
3042	1903	3	Residence	No	6 Anulla Place	60	55	58	55	58	55	0	0
3043	1907	3	Residence	No	4 Anulla Place	60	55	57	53	57	53	0	0
3044	1878	3	Residence	No	2 Anulla Place	60	55	56	52	56	52	0	0
3051	1571	3	Residence	Yes (8)	5-7 Pacific Highway	60	55	71	68	71	68	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
3052	1582	3	Residence	No	3 Pacific Highway	60	55	74	70	74	70	0	0
3060	1892	3	Residence	No	52 Russell Avenue	60	55	74	71	74	71	0	0
3061	1890	3	Residence	No	14 Pennant Hills Road	60	55	75	72	75	72	0	0
3062	1914	3	Residence	No	16 Pennant Hills Road	60	55	74	70	74	70	0	0
3063	1926	3	Residence	No	18 Pennant Hills Road	60	55	75	71	75	71	0	0
3064	1931	3	Residence	No	20 Pennant Hills Road	60	55	75	72	75	72	0	0
3065	1971	3	Residence	No	22 Pennant Hills Road	60	55	75	71	75	71	0	0
3066	1982	3	Residence	No	24 Pennant Hills Road	60	55	75	71	75	71	0	0
3067	1989	3	Residence	No	26 Pennant Hills Road	60	55	75	72	75	72	0	0
3667	1896	3	Residence	No	61 Russell Avenue	60	55	68	65	68	65	0	0
3670	921	2A	Residence	No	7 Burns Road	60	55	56	52	56	52	0	0
3672	925	2A	Residence	No	5 Burns Road	60	55	57	53	57	53	0	0
3674	605	2A	Residence	No	122 Coonanbarra Road	60	55	58	55	58	55	0	0
3675	443	1A	Residence	Yes (1)	6 Deakin Way	60	55	70	66	70	66	0	0
3726	N/A	5A	Residence	No	2A Havilah Avenue	60	55	58	54	58	54	0	0
3727	1909	3	Residence	No	44A Russell Avenue	60	55	60	56	60	56	0	0
3728	1905	3	Residence	No	46 Russell Avenue	60	55	53	50	53	50	0	0
3729	1917	3	Residence	No	52A Russell Avenue	60	55	60	56	60	56	0	0
3731	364	2B	Residence	No	125 Coonanbarra Road	60	55	56	52	56	52	0	0
3732	1992	3	Residence	No	2A Edwards Road	60	55	66	62	66	62	0	0
3746	463	1B	Residence	No	8 Collings Street	60	55	50	46	50	46	0	0
3840	295	1A	Residence	No	6-8 Carrington Road	60	55	59	55	59	55	0	0
3849	265	1A	Residence	No	6-8 Carrington Road	60	55	62	58	62	58	0	0
3882	456	1A	Residence	Yes (1)	1 Deakin Way	60	55	56	52	56	52	0	0
3894	242	1A	Residence	No	49 Woonona Avenue North	60	55	56	52	56	52	0	0
3910	257	1B	Residence	No	116 Woonona Avenue North	60	55	58	54	58	54	0	0
3946	478	1B	Residence	No	115A Edgeworth David Avenue	60	55	50	47	50	47	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								"Build" 2029		"Build" 2029		"Build" 2029	
						Day	Night	Day	Night	Day	Night	Day	Night
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
3949	327	2B	Residence	No	33 Carrington Road	60	55	57	54	57	54	0	0
3952	1084	2A	Residence	No	30 Woonona Avenue	60	55	65	61	65	61	0	0
3954	521	1B	Residence	No	101 Edgeworth David Avenue	60	55	49	46	49	46	0	0
3959	1702	5B	Residence	No	3 The Glade Walk	60	55	51	47	51	47	0	0
3963	1768	5B	Residence	No	4 Seaton Avenue	60	55	51	48	51	48	0	0
3968	N/A	5B	Residence	No	8 Exeter Road	60	55	52	48	52	48	0	0
3970	312	2B	Residence	No	23 Carrington Road	60	55	58	55	58	55	0	0
3973	1849	5A	Residence	No	23 Hewitt Avenue	60	55	52	48	52	48	0	0
3974	1846	5A	Residence	No	23A Hewitt Avenue	60	55	53	49	53	49	0	0
3975	957	1A	Residence	No	51 Bundarra Avenue North	60	55	53	49	53	49	0	0
3981	1988	3	Residence	No	4 Edwards Road	60	55	58	54	58	54	0	0
3988	929	2A	Residence	Yes (1)	1-3 Burns Road	60	55	62	58	62	58	0	0
4004	497	1B	Residence	No	113 Edgeworth David Avenue	60	55	50	46	50	46	0	0
4005	1822	5A	Residence	No	11A Hewitt Avenue	60	55	56	53	56	53	0	0
4007	273	1B	Residence	No	17 Spurgin Street	60	55	54	51	54	51	0	0
4011	N/A	5A	Residence	No	9 Hewitt Ave, Wahroonga	60	55	59	56	59	56	0	0
4012	N/A	5A	Residence	No	10 Kingsley Cl, Wahroonga	60	55	57	53	57	53	0	0
NR-5	1574	1C	School	No	1711 Pacific Highway	50	-	73	69	73	69	0	0
NR-14	1580	5C	Place of Worship	No	1711 Pacific Highway	50	50	73	69	73	69	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
1687	3663	10A	Residence	No	15 Karloon Road	60	55	52	48	52	48	0	0
1688	3687	10A	Residence	No	17 Karloon Road	60	55	52	48	52	48	0	0
1689	3704	10A	Residence	No	19 Karloon Road	60	55	52	49	52	49	0	0
1690	3729	10A	Residence	No	21 Karloon Road	60	55	52	49	52	49	0	0
1691	3747	10A	Residence	No	23 Karloon Road	60	55	52	48	52	48	0	0
1692	3767	10A	Residence	No	25 Karloon Road	60	55	53	49	53	49	0	0
1693	3779	10A	Residence	No	27 Karloon Road	60	55	52	48	52	48	0	0
1694	3791	10A	Residence	No	29 Karloon Road	60	55	53	50	53	50	0	0
1695	3814	10B	Residence	No	31 Karloon Road	60	55	53	49	53	49	0	0
1706	3828	10B	Residence	No	3 Ashley Avenue	60	55	53	50	53	50	0	0
1770	3903	10B	Residence	No	8 Ashley Avenue	60	55	51	48	51	48	0	0
1771	3885	10B	Residence	No	6 Ashley Avenue	60	55	52	48	52	48	0	0
1772	3869	10B	Residence	No	4 Ashley Avenue	60	55	54	50	54	50	0	0
1773	3852	10B	Residence	No	33 Karloon Road	60	55	52	49	52	49	0	0
1774	3866	10B	Residence	No	35 Karloon Road	60	55	54	50	54	50	0	0
1775	3888	10B	Residence	No	37 Karloon Road	60	55	53	49	53	49	0	0
1776	3904	10B	Residence	No	39A Eaton Road	60	55	53	49	53	49	0	0
1778	3929	10B	Residence	No	10A Ashley Avenue	60	55	52	48	52	48	0	0
1783	3982	10B	Residence	No	11 Wildara Avenue	60	55	51	48	51	48	0	0
1784	3983	10B	Residence	No	45 Eaton Road	60	55	53	50	53	50	0	0
2041	3500	10A	Residence	No	3 Eaton Road	60	55	53	49	53	49	0	0
2042	3508	10A	Residence	No	5 Eaton Road	60	55	55	52	55	52	0	0
2043	3511	10A	Residence	No	7 Eaton Road	60	55	55	51	55	51	0	0
2044	3478	10A	Residence	No	2 Eaton Road	60	55	59	56	59	56	0	0
2045	3497	10A	Residence	No	4 Eaton Road	60	55	59	55	59	55	0	0
2046	3521	10A	Residence	No	2 Hillside Place	60	55	53	49	53	49	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2047	3486	10A	Residence	No	4 Hillside Place	60	55	54	50	54	50	0	0
2048	3487	10A	Residence	No	6 Hillside Place	60	55	54	51	54	51	0	0
2049	3482	10A	Residence	No	8 Hillside Place	60	55	55	52	55	52	0	0
2050	3479	10A	Residence	No	10 Hillside Place	60	55	54	51	54	51	0	0
2051	3495	10A	Residence	No	12 Hillside Place	60	55	57	53	57	53	0	0
2053	3494	10A	Residence	No	14 Gum Grove Place	60	55	54	50	54	50	0	0
2054	3569	10A	Residence	No	5 Hillside Place	60	55	52	48	52	48	0	0
2055	3549	10A	Residence	No	3 Hillside Place	60	55	53	50	53	50	0	0
2056	3578	10A	Residence	No	1 Hillside Place	60	55	53	50	53	50	0	0
2057	3606	10A	Residence	No	6 Eaton Road	60	55	53	50	53	50	0	0
2058	3642	10A	Residence	No	8 Eaton Road	60	55	54	51	54	51	0	0
2059	3623	10A	Residence	No	4 Larchmont Place	60	55	54	50	54	50	0	0
2060	3566	10A	Residence	No	7 Hillside Place	60	55	54	51	54	51	0	0
2061	3542	10A	Residence	No	10 Gum Grove Place	60	55	55	51	55	51	0	0
2062	3572	10A	Residence	No	8 Gum Grove Place	60	55	53	49	53	49	0	0
2063	3596	10A	Residence	No	6 Gum Grove Place	60	55	54	50	54	50	0	0
2064	3624	10A	Residence	No	4 Gum Grove Place	60	55	54	50	54	50	0	0
2065	3654	10A	Residence	No	2 Gum Grove Place	60	55	53	49	53	49	0	0
2066	3795	10A	Residence	No	11 Savoy Court	60	55	54	50	54	50	0	0
2067	3683	10A	Residence	No	10 Eaton Road	60	55	52	49	52	49	0	0
2068	3677	10A	Residence	No	3 Larchmont Place	60	55	52	49	52	49	0	0
2069	3711	10A	Residence	No	12 Eaton Road	60	55	54	51	54	51	0	0
2070	3707	10A	Residence	No	5 Larchmont Place	60	55	54	50	54	50	0	0
2071	3706	10A	Residence	No	1 Savoy Court	60	55	53	50	53	50	0	0
2072	3736	10A	Residence	No	3 Savoy Court	60	55	53	50	53	50	0	0
2073	3757	10A	Residence	No	5 Savoy Court	60	55	52	49	52	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2074	3742	10A	Residence	No	14 Eaton Road	60	55	52	49	52	49	0	0
2075	3761	10A	Residence	No	16 Eaton Road	60	55	54	51	54	51	0	0
2076	3782	10A	Residence	No	18 Eaton Road	60	55	53	50	53	50	0	0
2077	3776	10A	Residence	No	7 Savoy Court	60	55	53	50	53	50	0	0
2078	3802	10A	Residence	No	9 Savoy Court	60	55	53	49	53	49	0	0
2079	3805	10A	Residence	No	20 Eaton Road	60	55	54	51	54	51	0	0
2080	3537	10A	Residence	No	4 Karloon Road	60	55	54	50	54	50	0	0
2081	3544	10A	Residence	No	9 Eaton Road	60	55	55	52	55	52	0	0
2082	3559	10A	Residence	No	6 Karloon Road	60	55	52	48	52	48	0	0
2084	3585	10A	Residence	No	8 Karloon Road	60	55	51	47	51	47	0	0
2085	3563	10A	Residence	No	11 Karloon Road	60	55	55	51	55	51	0	0
2086	3614	10A	Residence	No	10 Karloon Road	60	55	51	47	51	47	0	0
2087	3630	10A	Residence	No	12 Karloon Road	60	55	53	49	53	49	0	0
2088	3612	10A	Residence	No	15 Eaton Road	60	55	54	51	54	51	0	0
2089	3649	10A	Residence	No	14 Karloon Road	60	55	51	48	51	48	0	0
2090	3628	10A	Residence	No	17 Eaton Road	60	55	54	51	54	51	0	0
2091	3650	10A	Residence	No	19 Eaton Road	60	55	55	52	55	52	0	0
2092	3669	10A	Residence	No	16 Karloon Road	60	55	52	49	52	49	0	0
2093	3680	10A	Residence	No	18 Karloon Road	60	55	54	50	54	50	0	0
2094	3668	10A	Residence	No	21 Eaton Road	60	55	52	49	52	49	0	0
2095	3679	10A	Residence	No	23 Eaton Road	60	55	53	50	53	50	0	0
2096	3698	10A	Residence	No	20 Karloon Road	60	55	53	49	53	49	0	0
2097	3697	10A	Residence	No	25 Eaton Road	60	55	54	50	54	50	0	0
2098	3723	10A	Residence	No	22 Karloon Road	60	55	54	51	54	51	0	0
2099	3715	10A	Residence	No	27 Eaton Road	60	55	54	51	54	51	0	0
2100	3738	10A	Residence	No	24 Karloon Road	60	55	53	49	53	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2101	3745	10A	Residence	No	29 Eaton Road	60	55	53	50	53	50	0	0
2102	3762	10A	Residence	No	26 Karloon Road	60	55	53	49	53	49	0	0
2103	3768	10A	Residence	No	31 Eaton Road	60	55	53	50	53	50	0	0
2104	3788	10A	Residence	No	33 Eaton Road	60	55	54	50	54	50	0	0
2105	3808	10A	Residence	No	35 Eaton Road	60	55	54	50	54	50	0	0
2106	3499	10A	Residence	No	16 Gum Grove Place	60	55	55	52	55	52	0	0
2107	3490	10A	Residence	No	18 Gum Grove Place	60	55	54	50	54	50	0	0
2108	3481	10A	Residence	No	20 Gum Grove Place	60	55	59	55	59	55	0	0
2109	3504	10A	Residence	No	22 Gum Grove Place	60	55	60	57	60	57	0	0
2110	3533	10A	Residence	No	13 Gum Grove Place	60	55	62	59	62	59	0	0
2111	3557	10A	Residence	No	11 Gum Grove Place	60	55	56	52	56	52	0	0
2112	3579	10A	Residence	No	9 Gum Grove Place	60	55	54	50	54	50	0	0
2113	3565	10A	Residence	No	7 Gum Grove Place	60	55	53	50	53	50	0	0
2114	3562	10A	Residence	No	5 Gum Grove Place	60	55	52	49	52	49	0	0
2116	3600	10A	Residence	No	3 Gum Grove Place	60	55	54	50	54	50	0	0
2117	3635	10A	Residence	No	10 Larchmont Place	60	55	54	50	54	50	0	0
2118	3625	10A	Residence	No	12 Larchmont Place	60	55	54	51	54	51	0	0
2119	3627	10A	Residence	No	14 Larchmont Place	60	55	54	51	54	51	0	0
2120	3660	10A	Residence	No	15 Larchmont Place	60	55	54	51	54	51	0	0
2121	3681	10A	Residence	No	13 Larchmont Place	60	55	55	52	55	52	0	0
2122	3693	10A	Residence	No	11 Larchmont Place	60	55	53	49	53	49	0	0
2123	3701	10A	Residence	No	2 Savoy Court	60	55	53	50	53	50	0	0
2124	3732	10A	Residence	No	4 Savoy Court	60	55	54	51	54	51	0	0
2125	3751	10A	Residence	No	6 Savoy Court	60	55	52	49	52	49	0	0
2126	3766	10A	Residence	No	8 Savoy Court	60	55	53	49	53	49	0	0
2127	3785	10A	Residence	No	10 Savoy Court	60	55	52	48	52	48	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2128	3811	10A	Residence	No	12 Savoy Court	60	55	52	48	52	48	0	0
2130	3816	10A	Residence	No	13 Savoy Court	60	55	53	49	53	49	0	0
2131	3820	10B	Residence	No	14 Savoy Court	60	55	54	50	54	50	0	0
2132	3826	10B	Residence	No	22 Eaton Road	60	55	54	51	54	51	0	0
2133	3838	10B	Residence	No	4 Lisle Court	60	55	53	50	53	50	0	0
2134	3832	10B	Residence	No	6 Lisle Court	60	55	53	50	53	50	0	0
2135	3834	10B	Residence	No	8 Lisle Court	60	55	54	50	54	50	0	0
2136	3843	10B	Residence	No	2 Lisle Court	60	55	53	50	53	50	0	0
2137	3841	10B	Residence	No	10 Lisle Court	60	55	53	50	53	50	0	0
2138	3831	10B	Residence	No	37 Eaton Road	60	55	55	51	55	51	0	0
2139	3862	10B	Residence	No	12 Lisle Court	60	55	53	49	53	49	0	0
2140	3884	10B	Residence	No	14 Lisle Court	60	55	53	49	53	49	0	0
2141	3895	10B	Residence	No	16 Lisle Court	60	55	53	49	53	49	0	0
2142	3917	10B	Residence	No	18 Lisle Court	60	55	53	49	53	49	0	0
2143	3941	10B	Residence	No	20 Lisle Court	60	55	53	50	53	50	0	0
2144	3962	10B	Residence	No	22 Lisle Court	60	55	54	51	54	51	0	0
2145	3980	10B	Residence	No	24 Lisle Court	60	55	54	50	54	50	0	0
2146	3981	10B	Residence	No	15 Lisle Court	60	55	55	51	55	51	0	0
2147	3974	10B	Residence	No	13 Lisle Court	60	55	55	51	55	51	0	0
2148	3944	10B	Residence	No	11 Lisle Court	60	55	54	50	54	50	0	0
2149	3926	10B	Residence	No	9 Lisle Court	60	55	54	50	54	50	0	0
2150	3906	10B	Residence	No	7 Lisle Court	60	55	54	50	54	50	0	0
2151	3882	10B	Residence	No	5 Lisle Court	60	55	54	50	54	50	0	0
2152	3879	10B	Residence	No	3 Lisle Court	60	55	54	50	54	50	0	0
2153	3887	10B	Residence	No	1 Lisle Court	60	55	54	50	54	50	0	0
2154	3907	10B	Residence	No	26 Eaton Road	60	55	54	51	54	51	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2155	3925	10B	Residence	No	28 Eaton Road	60	55	55	52	55	52	0	0
2156	3942	10B	Residence	No	30 Eaton Road	60	55	54	51	54	51	0	0
2157	4010	10B	Residence	No	5 Mundon Place	60	55	55	51	55	51	0	0
2158	4004	10B	Residence	No	7 Mundon Place	60	55	53	50	53	50	0	0
2159	4077	10B	Residence	No	3 Mundon Place	60	55	56	52	56	52	0	0
2160	4100	10B	Residence	No	1 Mundon Place	60	55	56	53	56	53	0	0
2161	4062	10B	Residence	No	4 Mundon Place	60	55	55	52	55	52	0	0
2162	4095	10B	Residence	No	2 Mundon Place	60	55	56	53	56	53	0	0
2163	4046	10B	Residence	No	6 Mundon Place	60	55	55	51	55	51	0	0
2164	4019	10B	Residence	No	10 Mundon Place	60	55	54	50	54	50	0	0
2165	4093	10B	Residence	No	34 Oakes Road	60	55	56	53	56	53	0	0
2166	4094	10B	Residence	No	32 Oakes Road	60	55	54	51	54	51	0	0
2167	4096	10B	Residence	No	30 Oakes Road	60	55	54	51	54	51	0	0
2168	4098	10B	Residence	No	28 Oakes Road	60	55	55	51	55	51	0	0
2169	4063	10B	Residence	No	38 Eaton Road	60	55	53	50	53	50	0	0
2170	4031	10B	Residence	No	36 Eaton Road	60	55	54	51	54	51	0	0
2171	4007	10B	Residence	No	34 Eaton Road	60	55	54	50	54	50	0	0
2172	3468	10C	Residence	No	50A Coral Tree Drive	60	55	68	65	68	65	0	0
2173	3477	10C	Residence	No	56 Coral Tree Drive	60	55	64	60	64	60	0	0
2174	3488	10C	Residence	No	58 Coral Tree Drive	60	55	57	54	57	54	0	0
2175	3485	10C	Residence	No	60 Coral Tree Drive	60	55	57	53	57	53	0	0
2176	3498	10C	Residence	No	62 Coral Tree Drive	60	55	55	51	55	51	0	0
2177	3510	10C	Residence	No	64 Coral Tree Drive	60	55	58	54	58	54	0	0
2178	3519	10C	Residence	No	66 Coral Tree Drive	60	55	62	58	62	58	0	0
2179	3532	10C	Residence	No	68 Coral Tree Drive	60	55	60	57	60	57	0	0
2188	3541	10C	Residence	No	39 Coral Tree Drive	60	55	59	56	59	56	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2189	3587	10C	Residence	No	35 Coral Tree Drive	60	55	59	56	59	56	0	0
2190	3621	10C	Residence	No	33 Coral Tree Drive	60	55	58	54	58	54	0	0
2191	3547	10C	Residence	No	1 Kirriford Way	60	55	56	53	56	53	0	0
2192	3576	10C	Residence	No	3 Kirriford Way	60	55	55	51	55	51	0	0
2193	3620	10C	Residence	No	5 Kirriford Way	60	55	55	52	55	52	0	0
2194	3664	10C	Residence	No	4 Kerribee Place	60	55	56	52	56	52	0	0
2195	3626	10C	Residence	No	6 Kirriford Way	60	55	56	53	56	53	0	0
2196	3661	10C	Residence	No	6 Kerribee Place	60	55	57	53	57	53	0	0
2197	3574	10C	Residence	No	43 Coral Tree Drive	60	55	59	55	59	55	0	0
2198	3616	10C	Residence	No	4 Kirriford Way	60	55	59	55	59	55	0	0
2199	3662	10C	Residence	No	8 Kerribee Place	60	55	57	54	57	54	0	0
2200	3597	10C	Residence	No	45 Coral Tree Drive	60	55	55	52	55	52	0	0
2201	3619	10C	Residence	No	47 Coral Tree Drive	60	55	58	54	58	54	0	0
2202	3645	10C	Residence	No	49 Coral Tree Drive	60	55	58	55	58	55	0	0
2221	3665	10C	Residence	No	10 Kerribee Place	60	55	58	54	58	54	0	0
2222	3656	10C	Residence	No	3 Runnymede Way	60	55	55	52	55	52	0	0
2223	3667	10C	Residence	No	51 Coral Tree Drive	60	55	58	54	58	54	0	0
2224	3712	10C	Residence	No	53 Coral Tree Drive	60	55	55	51	55	51	0	0
2225	3740	10C	Residence	No	55 Coral Tree Drive	60	55	55	51	55	51	0	0
2226	3735	10C	Residence	No	4 Runnymede Way	60	55	57	54	57	54	0	0
2227	3717	10C	Residence	No	6 Runnymede Way	60	55	57	53	57	53	0	0
2228	3691	10C	Residence	No	5 Runnymede Way	60	55	55	52	55	52	0	0
2229	3700	10C	Residence	No	13 Kerribee Place	60	55	57	54	57	54	0	0
2230	3725	10C	Residence	No	11 Kerribee Place	60	55	56	53	56	53	0	0
2231	3733	10C	Residence	No	9 Kerribee Place	60	55	57	54	57	54	0	0
2232	3722	10C	Residence	No	7 Kerribee Place	60	55	58	55	58	55	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2233	3727	10C	Residence	No	29 Coral Tree Drive	60	55	58	55	58	55	0	0
2234	3759	10C	Residence	No	27 Coral Tree Drive	60	55	62	59	62	59	0	0
2235	3777	10C	Residence	No	25 Coral Tree Drive	60	55	59	56	59	56	0	0
2236	3793	10C	Residence	No	23 Coral Tree Drive	60	55	60	57	60	57	0	0
2237	3823	10D	Residence	No	21 Coral Tree Drive	60	55	60	56	60	56	0	0
2238	3748	10C	Residence	No	32 Coral Tree Drive	60	55	62	58	62	58	0	0
2239	3769	10C	Residence	No	30 Coral Tree Drive	60	55	60	57	60	57	0	0
2240	3787	10C	Residence	No	28 Coral Tree Drive	60	55	62	59	62	59	0	0
2241	3801	10C	Residence	No	26 Coral Tree Drive	60	55	59	56	59	56	0	0
2242	3825	10D	Residence	No	24 Coral Tree Drive	60	55	61	58	61	58	0	0
2243	3842	10D	Residence	No	22 Coral Tree Drive	60	55	63	60	63	60	0	0
2244	3860	10D	Residence	No	20 Coral Tree Drive	60	55	63	60	63	60	0	0
2245	3883	10D	Residence	No	18 Coral Tree Drive	60	55	63	60	63	60	0	0
2246	3902	10D	Residence	No	16 Coral Tree Drive	60	55	59	55	59	55	0	0
2247	3915	10D	Residence	No	14 Coral Tree Drive	60	55	59	56	59	56	0	0
2248	3936	10D	Residence	No	12 Coral Tree Drive	60	55	58	54	58	54	0	0
2249	3954	10D	Residence	No	10 Coral Tree Drive	60	55	58	55	58	55	0	0
2250	3976	10D	Residence	No	8 Coral Tree Drive	60	55	57	54	57	54	0	0
2251	3993	10D	Residence	No	6 Coral Tree Drive	60	55	58	54	58	54	0	0
2252	4009	10D	Residence	No	4 Coral Tree Drive	60	55	58	55	58	55	0	0
2253	4037	10D	Residence	No	2 Coral Tree Drive	60	55	59	55	59	55	0	0
2256	3878	10D	Residence	No	15 Coral Tree Drive	60	55	60	56	60	56	0	0
2257	3901	10D	Residence	No	13 Coral Tree Drive	60	55	61	58	61	58	0	0
2258	3919	10D	Residence	No	11 Coral Tree Drive	60	55	61	58	61	58	0	0
2259	3937	10D	Residence	No	9 Coral Tree Drive	60	55	59	56	59	56	0	0
2260	3955	10D	Residence	No	7 Coral Tree Drive	60	55	59	55	59	55	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2261	3978	10D	Residence	No	5 Coral Tree Drive	60	55	60	57	60	57	0	0
2262	3977	10D	Residence	No	2 Pepperina Place	60	55	60	57	60	57	0	0
2263	3957	10D	Residence	No	4 Pepperina Place	60	55	57	54	57	54	0	0
2264	3940	10D	Residence	No	6 Pepperina Place	60	55	57	53	57	53	0	0
2265	3921	10D	Residence	No	8 Pepperina Place	60	55	57	53	57	53	0	0
2266	3898	10D	Residence	No	10 Pepperina Place	60	55	59	56	59	56	0	0
2267	3881	10D	Residence	No	12 Pepperina Place	60	55	57	54	57	54	0	0
2268	3886	10D	Residence	No	9 Pepperina Place	60	55	56	52	56	52	0	0
2269	3899	10D	Residence	No	7 Pepperina Place	60	55	56	53	56	53	0	0
2270	3923	10D	Residence	No	5 Pepperina Place	60	55	54	50	54	50	0	0
2271	3943	10D	Residence	No	3 Pepperina Place	60	55	54	50	54	50	0	0
2272	3970	10D	Residence	No	1 Pepperina Place	60	55	54	50	54	50	0	0
2273	3979	10D	Residence	No	8 Moorilla Avenue	60	55	53	50	53	50	0	0
2274	3875	10D	Residence	No	22 Moorilla Avenue	60	55	52	48	52	48	0	0
2275	3900	10D	Residence	No	20 Moorilla Avenue	60	55	52	48	52	48	0	0
2276	3913	10D	Residence	No	18 Moorilla Avenue	60	55	52	49	52	49	0	0
2277	3931	10D	Residence	No	16 Moorilla Avenue	60	55	51	47	51	47	0	0
2278	3949	10D	Residence	No	14 Moorilla Avenue	60	55	53	49	53	49	0	0
2279	3971	10D	Residence	No	12 Moorilla Avenue	60	55	53	49	53	49	0	0
2280	3994	10D	Residence	No	10 Moorilla Avenue	60	55	53	49	53	49	0	0
2281	4011	10D	Residence	No	3 Coral Tree Drive	60	55	62	59	62	59	0	0
2282	4015	10D	Residence	No	3 Moorilla Avenue	60	55	58	54	58	54	0	0
2283	4013	10D	Residence	No	5 Moorilla Avenue	60	55	58	54	58	54	0	0
2284	4016	10D	Residence	No	7 Moorilla Avenue	60	55	58	54	58	54	0	0
2285	4025	10D	Residence	No	9 Moorilla Avenue	60	55	58	54	58	54	0	0
2286	4026	10D	Residence	No	11 Moorilla Avenue	60	55	57	53	57	53	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2287	4030	10D	Residence	No	13 Moorilla Avenue	60	55	56	52	56	52	0	0
2288	4042	10D	Residence	No	15 Moorilla Avenue	60	55	53	49	53	49	0	0
2290	4067	10D	Residence	No	62 Oakes Road	60	55	60	56	60	56	0	0
2291	4068	10D	Residence	No	64 Oakes Road	60	55	59	56	59	56	0	0
2292	4064	10D	Residence	No	66 Oakes Road	60	55	61	57	61	57	0	0
2293	4070	10D	Residence	No	68 Oakes Road	60	55	58	54	58	54	0	0
2294	4105	10D	Residence	No	70 Oakes Road	60	55	57	54	57	54	0	0
2295	4108	10D	Residence	No	72 Oakes Road	60	55	56	53	56	53	0	0
2296	4147	11A	Residence	No	12A Westmore Drive	60	55	57	54	57	54	0	0
2297	4164	11A	Residence	No	12B Westmore Drive	60	55	56	53	56	53	0	0
2298	4185	11A	Residence	No	14 Westmore Drive	60	55	57	53	57	53	0	0
2299	4199	11A	Residence	No	16 Westmore Drive	60	55	58	54	58	54	0	0
2300	4220	11A	Residence	No	18 Westmore Drive	60	55	57	54	57	54	0	0
2301	4236	11A	Residence	No	20 Westmore Drive	60	55	59	55	59	55	0	0
2302	4253	11A	Residence	No	22 Westmore Drive	60	55	58	54	58	54	0	0
2303	4277	11A	Residence	No	24 Westmore Drive	60	55	58	55	58	55	0	0
2304	4297	11A	Residence	No	26 Westmore Drive	60	55	59	55	59	55	0	0
2305	4321	11A	Residence	No	28 Westmore Drive	60	55	58	55	58	55	0	0
2306	4337	11A	Residence	No	30 Westmore Drive	60	55	58	55	58	55	0	0
2307	4351	11A	Residence	No	32 Westmore Drive	60	55	58	55	58	55	0	0
2308	4373	11A	Residence	No	34 Westmore Drive	60	55	59	55	59	55	0	0
2309	4396	11A	Residence	No	36 Westmore Drive	60	55	58	55	58	55	0	0
2310	4414	11A	Residence	No	38 Westmore Drive	60	55	58	55	58	55	0	0
2311	4422	11A	Residence	No	40 Westmore Drive	60	55	59	55	59	55	0	0
2312	4446	11A	Residence	No	42 Westmore Drive	60	55	59	56	59	56	0	0
2313	4461	11A	Residence	No	44 Westmore Drive	60	55	59	55	59	55	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2314	4476	11A	Residence	No	46 Westmore Drive	60	55	59	56	59	56	0	0
2315	4487	11A	Residence	No	48 Westmore Drive	60	55	59	56	59	56	0	0
2316	4503	11A	Residence	No	50 Westmore Drive	60	55	58	55	58	55	0	0
2317	4514	11A	Residence	No	52 Westmore Drive	60	55	58	54	58	54	0	0
2318	4522	11A	Residence	No	54 Westmore Drive	60	55	58	54	58	54	0	0
2319	4534	11A	Residence	No	56 Westmore Drive	60	55	58	55	58	55	0	0
2320	4551	11A	Residence	No	58 Westmore Drive	60	55	58	55	58	55	0	0
2321	4560	11A	Residence	No	60 Westmore Drive	60	55	57	54	57	54	0	0
2322	4573	11A	Residence	No	62 Westmore Drive	60	55	59	56	59	56	0	0
2323	4592	11A	Residence	No	64 Westmore Drive	60	55	59	56	59	56	0	0
2324	4602	11A	Residence	No	66 Westmore Drive	60	55	60	56	60	56	0	0
2325	4631	11A	Residence	No	70 Westmore Drive	60	55	62	58	62	58	0	0
2326	4641	11A	Residence	No	72 Westmore Drive	60	55	62	58	62	58	0	0
2327	4668	11A	Residence	No	74 Westmore Drive	60	55	63	59	63	59	0	0
2328	4681	11A	Residence	No	76 Westmore Drive	60	55	63	60	63	60	0	0
2330	4717	11A	Residence	No	78 Westmore Drive	60	55	63	59	63	59	0	0
2331	4730	11A	Residence	No	78 Westmore Drive	60	55	62	59	62	59	0	0
2332	4152	11A	Residence	No	12 Westmore Drive	60	55	57	53	57	53	0	0
2333	4217	11A	Residence	No	9 Westmore Drive	60	55	58	54	58	54	0	0
2334	4241	11A	Residence	No	11 Westmore Drive	60	55	58	55	58	55	0	0
2335	4251	11A	Residence	No	13 Westmore Drive	60	55	58	55	58	55	0	0
2336	4292	11A	Residence	No	19 Westmore Drive	60	55	59	55	59	55	0	0
2337	4312	11A	Residence	No	21 Westmore Drive	60	55	58	55	58	55	0	0
2338	4327	11A	Residence	No	25 Westmore Drive	60	55	58	55	58	55	0	0
2339	4357	11A	Residence	No	27 Westmore Drive	60	55	58	55	58	55	0	0
2340	4376	11A	Residence	No	29 Westmore Drive	60	55	60	56	60	56	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2341	4419	11A	Residence	No	31 Westmore Drive	60	55	59	55	59	55	0	0
2342	4464	11A	Residence	No	1 Gwen Place	60	55	58	55	58	55	0	0
2343	4490	11A	Residence	No	35 Westmore Drive	60	55	57	53	57	53	0	0
2344	4501	11A	Residence	No	37 Westmore Drive	60	55	56	53	56	53	0	0
2345	4532	11A	Residence	No	39 Westmore Drive	60	55	56	53	56	53	0	0
2346	4557	11A	Residence	No	41 Westmore Drive	60	55	58	55	58	55	0	0
2347	4591	11A	Residence	No	9 Dickson Avenue	60	55	56	53	56	53	0	0
2348	4612	11A	Residence	No	47 Westmore Drive	60	55	58	55	58	55	0	0
2349	4626	11A	Residence	No	49 Westmore Drive	60	55	59	55	59	55	0	0
2350	4680	11A	Residence	No	51 Westmore Drive	60	55	59	55	59	55	0	0
2351	4703	11A	Residence	No	53 Westmore Drive	60	55	58	55	58	55	0	0
2352	4718	11A	Residence	No	55 Westmore Drive	60	55	50	46	50	46	0	0
2353	4143	11A	Residence	No	37 Oakes Road	60	55	57	54	57	54	0	0
2354	4159	11A	Residence	No	10 Westmore Drive	60	55	57	54	57	54	0	0
2355	4139	11A	Residence	No	35 Oakes Road	60	55	56	52	56	52	0	0
2356	4167	11A	Residence	No	8 Westmore Drive	60	55	57	54	57	54	0	0
2357	4141	11A	Residence	No	33 Oakes Road	60	55	56	52	56	52	0	0
2358	4163	11A	Residence	No	6 Westmore Drive	60	55	55	51	55	51	0	0
2359	4142	11A	Residence	No	31 Oakes Road	60	55	56	52	56	52	0	0
2360	4162	11A	Residence	No	4 Westmore Drive	60	55	56	52	56	52	0	0
2361	4138	11A	Residence	No	29 Oakes Road	60	55	55	51	55	51	0	0
2362	4161	11A	Residence	No	2 Westmore Drive	60	55	56	52	56	52	0	0
2363	4135	11A	Residence	No	42 Eaton Road	60	55	56	53	56	53	0	0
2364	4150	11A	Residence	No	44 Eaton Road	60	55	57	53	57	53	0	0
2365	4219	11A	Residence	No	7 Westmore Drive	60	55	55	51	55	51	0	0
2366	4205	11A	Residence	No	5 Westmore Drive	60	55	57	53	57	53	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2367	4204	11A	Residence	No	3 Westmore Drive	60	55	56	53	56	53	0	0
2368	4202	11A	Residence	No	1 Westmore Drive	60	55	56	53	56	53	0	0
2369	4245	11A	Residence	No	15 Westmore Drive	60	55	56	53	56	53	0	0
2370	4235	11A	Residence	No	48 Eaton Road	60	55	57	53	57	53	0	0
2371	4252	11A	Residence	No	50 Eaton Road	60	55	57	54	57	54	0	0
2372	4289	11A	Residence	No	17 Westmore Drive	60	55	58	55	58	55	0	0
2373	4287	11A	Residence	No	54 Eaton Road	60	55	56	53	56	53	0	0
2374	4279	11A	Residence	No	52 Eaton Road	60	55	56	53	56	53	0	0
2375	4333	11A	Residence	No	23 Westmore Drive	60	55	57	54	57	54	0	0
2376	4315	11A	Residence	No	58 Eaton Road	60	55	56	53	56	53	0	0
2377	4320	11A	Residence	No	60 Eaton Road	60	55	57	54	57	54	0	0
2378	4371	11A	Residence	No	2 Betts Place	60	55	56	52	56	52	0	0
2379	4372	11A	Residence	No	3 Betts Place	60	55	58	55	58	55	0	0
2380	4325	11A	Residence	No	62 Eaton Road	60	55	56	52	56	52	0	0
2381	4343	11A	Residence	No	64 Eaton Road	60	55	57	53	57	53	0	0
2382	4370	11A	Residence	No	66 Eaton Road	60	55	56	53	56	53	0	0
2383	4386	11A	Residence	No	68 Eaton Road	60	55	56	53	56	53	0	0
2384	4408	11A	Residence	No	4 Betts Place	60	55	57	54	57	54	0	0
2385	4404	11A	Residence	No	70 Eaton Road	60	55	56	53	56	53	0	0
2386	4424	11A	Residence	No	6 Betts Place	60	55	55	52	55	52	0	0
2387	4425	11A	Residence	No	5 Betts Place	60	55	55	51	55	51	0	0
2388	4421	11A	Residence	No	72 Eaton Road	60	55	57	53	57	53	0	0
2389	4450	11A	Residence	No	2 Gwen Place	60	55	55	52	55	52	0	0
2390	4452	11A	Residence	No	3 Gwen Place	60	55	58	54	58	54	0	0
2391	4447	11A	Residence	No	74 Eaton Road	60	55	57	54	57	54	0	0
2392	4469	11A	Residence	No	4 Gwen Place	60	55	57	53	57	53	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2393	4466	11A	Residence	No	76 Eaton Road	60	55	57	54	57	54	0	0
2394	4488	11A	Residence	No	6 Gwen Place	60	55	56	53	56	53	0	0
2395	4484	11A	Residence	No	5 Gwen Place	60	55	57	53	57	53	0	0
2396	4478	11A	Residence	No	78 Eaton Road	60	55	57	53	57	53	0	0
2397	4497	11A	Residence	No	2 Robyne Place	60	55	57	53	57	53	0	0
2398	4498	11A	Residence	No	3 Robyne Place	60	55	57	53	57	53	0	0
2399	4496	11A	Residence	No	80 Eaton Road	60	55	56	52	56	52	0	0
2400	4495	11A	Residence	No	82 Eaton Road	60	55	56	52	56	52	0	0
2401	4499	11A	Residence	No	4 Robyne Place	60	55	55	52	55	52	0	0
2402	4530	11A	Residence	No	6 Robyne Place	60	55	57	53	57	53	0	0
2403	4523	11A	Residence	No	5 Robyne Place	60	55	54	51	54	51	0	0
2404	4500	11A	Residence	No	84 Eaton Road	60	55	54	51	54	51	0	0
2405	4521	11A	Residence	No	86 Eaton Road	60	55	56	52	56	52	0	0
2406	4553	11A	Residence	No	8 Dickson Avenue	60	55	56	52	56	52	0	0
2407	4549	11A	Residence	No	6 Dickson Avenue	60	55	56	53	56	53	0	0
2408	4538	11A	Residence	No	4 Dickson Avenue	60	55	56	52	56	52	0	0
2409	4537	11A	Residence	No	2 Dickson Avenue	60	55	56	52	56	52	0	0
2410	4584	11A	Residence	No	7 Dickson Avenue	60	55	57	54	57	54	0	0
2411	4576	11A	Residence	No	5 Dickson Avenue	60	55	56	53	56	53	0	0
2412	4569	11A	Residence	No	3 Dickson Avenue	60	55	56	53	56	53	0	0
2413	4562	11A	Residence	No	1 Dickson Avenue	60	55	57	53	57	53	0	0
2414	4607	11A	Residence	No	45 Westmore Drive	60	55	57	53	57	53	0	0
2415	4599	11A	Residence	No	92 Eaton Road	60	55	57	53	57	53	0	0
2416	4615	11A	Residence	No	3 Kylie Crescent	60	55	57	54	57	54	0	0
2417	4624	11A	Residence	No	5 Kylie Crescent	60	55	56	53	56	53	0	0
2418	4609	11A	Residence	No	94 Eaton Road	60	55	56	52	56	52	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2419	4613	11A	Residence	No	96 Eaton Road	60	55	56	53	56	53	0	0
2420	4629	11A	Residence	No	98 Eaton Road	60	55	57	54	57	54	0	0
2421	4644	11A	Residence	No	9 Kylie Crescent	60	55	58	54	58	54	0	0
2422	4662	11A	Residence	No	11 Kylie Crescent	60	55	58	54	58	54	0	0
2423	4672	11A	Residence	No	13 Kylie Crescent	60	55	57	54	57	54	0	0
2424	4621	11A	Residence	No	100 Eaton Road	60	55	56	52	56	52	0	0
2425	4636	11A	Residence	No	100 Eaton Road	60	55	56	53	56	53	0	0
2426	4648	11A	Residence	No	102 Eaton Road	60	55	54	50	54	50	0	0
2427	4663	11A	Residence	No	104 Eaton Road	60	55	55	51	55	51	0	0
2428	4665	11A	Residence	No	2 Kylie Crescent	60	55	59	56	59	56	0	0
2429	4675	11A	Residence	No	4 Kylie Crescent	60	55	51	48	51	48	0	0
2430	4690	11A	Residence	No	6 Kylie Crescent	60	55	56	53	56	53	0	0
2431	5015	11A	Residence	No	2 Virginia Place	60	55	61	58	61	58	0	0
2432	5029	11A	Residence	No	8 Virginia Place	60	55	60	56	60	56	0	0
2433	5039	11A	Residence	No	10 Virginia Place	60	55	62	58	62	58	0	0
2434	5052	11A	Residence	No	16 Virginia Place	60	55	62	59	62	59	0	0
2435	5048	11A	Residence	No	14 Virginia Place	60	55	64	60	64	60	0	0
2436	5038	11A	Residence	No	12 Virginia Place	60	55	62	58	62	58	0	0
2437	5027	11A	Residence	No	6 Virginia Place	60	55	63	59	63	59	0	0
2438	5014	11A	Residence	No	2A Virginia Place	60	55	63	59	63	59	0	0
2439	4998	11A	Residence	No	106 Westmore Drive	60	55	62	59	62	59	0	0
2440	4980	11A	Residence	No	106 Westmore Drive	60	55	62	58	62	58	0	0
2441	4970	11A	Residence	No	106 Westmore Drive	60	55	62	58	62	58	0	0
2442	4958	11A	Residence	No	78-106 Westmore Drive	60	55	64	60	64	60	0	0
2443	4948	11A	Residence	No	78-106 Westmore Drive	60	55	60	57	60	57	0	0
2444	4938	11A	Residence	No	78-106 Westmore Drive	60	55	62	58	62	58	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2445	4928	11A	Residence	No	78-106 Westmore Drive	60	55	62	58	62	58	0	0
2446	4920	11A	Residence	No	78-106 Westmore Drive	60	55	62	59	62	59	0	0
2447	4912	11A	Residence	No	88 Westmore Drive	60	55	64	60	64	60	0	0
2448	4910	11A	Residence	No	86 Westmore Drive	60	55	64	60	64	60	0	0
2449	4740	11A	Residence	No	84 Wstmore Drive	60	55	64	61	64	61	0	0
2450	4935	11A	Residence	No	21-23 Kylie Crescent	60	55	56	53	56	53	0	0
2452	4982	11A	Residence	No	31 Kylie Crescent	60	55	55	52	55	52	0	0
2454	4993	11A	Residence	No	33 Kylie Crescent	60	55	55	51	55	51	0	0
2455	5026	11A	Residence	No	10 Range Road	60	55	50	46	50	46	0	0
2456	5033	11A	Residence	No	3 Virginia Place	60	55	53	50	53	50	0	0
2457	5060	11A	Residence	No	9 Virginia Place	60	55	57	54	57	54	0	0
2458	5023	11A	Residence	No	8 Range Road	60	55	55	52	55	52	0	0
2459	5004	11A	Residence	No	7 Range Road	60	55	56	52	56	52	0	0
2460	4989	11A	Residence	No	26 Kylie Crescent	60	55	57	54	57	54	0	0
2461	4973	11A	Residence	No	24 Kylie Crescent	60	55	55	51	55	51	0	0
2462	4961	11A	Residence	No	22 Kylie Crescent	60	55	57	53	57	53	0	0
2463	4951	11A	Residence	No	20 Kylie Crescent	60	55	57	53	57	53	0	0
2464	4939	11A	Residence	No	18 Kylie Crescent	60	55	56	53	56	53	0	0
2465	4931	11A	Residence	No	16 Kylie Crescent	60	55	57	54	57	54	0	0
2466	4921	11A	Residence	No	14 Kylie Crescent	60	55	57	53	57	53	0	0
2467	4731	11A	Residence	No	12 Kylie Crescent	60	55	59	55	59	55	0	0
2468	4719	11A	Residence	No	10 Kylie Crescent	60	55	58	55	58	55	0	0
2469	4709	11A	Residence	No	8 Kylie Crescent	60	55	58	55	58	55	0	0
2470	4728	11A	Residence	No	57 Westmore Drive	60	55	59	56	59	56	0	0
2471	4741	11A	Residence	No	59 Westmore Drive	60	55	58	54	58	54	0	0
2472	4915	11A	Residence	No	61 Westmore Drive	60	55	58	54	58	54	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2474	4934	11A	Residence	No	65 Westmore Drive	60	55	58	54	58	54	0	0
2476	4955	11A	Residence	No	69 Westmore Drive	60	55	57	53	57	53	0	0
2477	4968	11A	Residence	No	71 Westmore Drive	60	55	57	53	57	53	0	0
2478	4978	11A	Residence	No	73 Westmore Drive	60	55	57	53	57	53	0	0
2479	4988	11A	Residence	No	75 Westmore Drive	60	55	58	54	58	54	0	0
2480	5000	11A	Residence	No	77 Westmore Drive	60	55	57	54	57	54	0	0
2481	5024	11A	Residence	No	1 Virginia Place	60	55	60	56	60	56	0	0
2482	5035	11A	Residence	No	5 Virginia Place	60	55	59	55	59	55	0	0
2483	5053	11A	Residence	No	7 Virginia Place	60	55	60	56	60	56	0	0
2484	5058	11A	Residence	No	11 Virginia Place	60	55	62	58	62	58	0	0
2485	4691	11A	Residence	No	15 Kylie Crescent	60	55	57	54	57	54	0	0
2486	4705	11A	Residence	No	17 Kylie Crescent	60	55	55	52	55	52	0	0
2487	4716	11A	Residence	No	19A Kylie Crescent	60	55	57	53	57	53	0	0
2488	4923	11A	Residence	No	19 Kylie Crescent	60	55	57	53	57	53	0	0
2490	4224	11B	Residence	No	1 Carmen Drive	60	55	63	59	63	59	0	0
2491	4237	11B	Residence	No	5 Carmen Drive	60	55	64	61	64	61	0	0
2492	4257	11B	Residence	No	7 Carmen Drive	60	55	63	60	63	60	0	0
2493	4282	11B	Residence	No	9 Carmen Drive	60	55	61	57	61	57	0	0
2494	4306	11B	Residence	No	11 Carmen Drive	60	55	63	59	63	59	0	0
2495	4330	11B	Residence	No	13 Carmen Drive	60	55	59	55	59	55	0	0
2496	4350	11B	Residence	No	15 Carmen Drive	60	55	58	55	58	55	0	0
2497	4374	11B	Residence	No	17 Carmen Drive	60	55	60	56	60	56	0	0
2498	4393	11B	Residence	No	19 Carmen Drive	60	55	59	56	59	56	0	0
2499	4410	11B	Residence	No	21 Carmen Drive	60	55	61	58	61	58	0	0
2500	4423	11B	Residence	No	23 Carmen Drive	60	55	61	58	61	58	0	0
2501	4444	11B	Residence	No	25 Carmen Drive	60	55	64	60	64	60	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2502	4459	11B	Residence	No	27 Carmen Drive	60	55	69	66	69	66	0	0
2503	4475	11B	Residence	No	29 Carmen Drive	60	55	69	65	69	65	0	0
2504	4483	11B	Residence	No	31 Carmen Drive	60	55	69	65	69	65	0	0
2505	4518	11B	Residence	No	33 Carmen Drive	60	55	74	71	74	71	0	0
2507	4233	11B	Residence	No	22 Carmen Drive	60	55	60	57	60	57	0	0
2508	4263	11B	Residence	No	24 Carmen Drive	60	55	60	57	60	57	0	0
2509	4283	11B	Residence	No	26 Carmen Drive	60	55	59	56	59	56	0	0
2510	4303	11B	Residence	No	28 Carmen Drive	60	55	60	56	60	56	0	0
2511	4342	11B	Residence	No	30 Carmen Drive	60	55	58	54	58	54	0	0
2512	4365	11B	Residence	No	32 Carmen Drive	60	55	61	57	61	57	0	0
2513	4380	11B	Residence	No	34 Carmen Drive	60	55	59	56	59	56	0	0
2514	4400	11B	Residence	No	36 Carmen Drive	60	55	60	56	60	56	0	0
2515	4417	11B	Residence	No	38 Carmen Drive	60	55	60	57	60	57	0	0
2516	4431	11B	Residence	No	40 Carmen Drive	60	55	62	58	62	58	0	0
2517	4448	11B	Residence	No	42 Carmen Drive	60	55	62	58	62	58	0	0
2518	4467	11B	Residence	No	44 Carmen Drive	60	55	62	59	62	59	0	0
2519	4477	11B	Residence	No	46 Carmen Drive	60	55	64	61	64	61	0	0
2520	4515	11B	Residence	No	48 Carmen Drive	60	55	65	61	65	61	0	0
2521	4529	11B	Residence	No	50 Carmen Drive	60	55	65	61	65	61	0	0
2522	4540	11B	Residence	No	52A Carmen Drive	60	55	65	61	65	61	0	0
2523	4555	11B	Residence	No	54 Carmen Drive	60	55	63	60	63	60	0	0
2524	4565	11B	Residence	No	56 Carmen Drive	60	55	64	60	64	60	0	0
2525	4581	11B	Residence	No	58 Carmen Drive	60	55	63	59	63	59	0	0
2526	4628	11B	Residence	No	53 Carmen Drive	60	55	67	63	67	63	0	0
2527	4656	11B	Residence	No	2 Morton Avenue	60	55	64	60	64	60	0	0
2528	4642	11B	Residence	No	4 Morton Avenue	60	55	65	61	65	61	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2529	4630	11B	Residence	No	6 Morton Avenue	60	55	63	60	63	60	0	0
2530	4586	11B	Residence	No	60 Carmen Drive	60	55	61	58	61	58	0	0
2531	4590	11B	Residence	No	62 Carmen Drive	60	55	59	55	59	55	0	0
2532	4598	11B	Residence	No	64 Carmen Drive	60	55	60	57	60	57	0	0
2533	4582	11B	Residence	No	64 Carmen Drive	60	55	61	57	61	57	0	0
2534	4567	11B	Residence	No	66 Carmen Drive	60	55	60	56	60	56	0	0
2535	4554	11B	Residence	No	68 Carmen Drive	60	55	62	59	62	59	0	0
2536	4541	11B	Residence	No	70 Carmen Drive	60	55	62	59	62	59	0	0
2537	4525	11B	Residence	No	72 Carmen Drive	60	55	62	58	62	58	0	0
2538	4480	11B	Residence	No	74 Carmen Drive	60	55	62	58	62	58	0	0
2539	4473	11B	Residence	No	76 Carmen Drive	60	55	61	58	61	58	0	0
2540	N/A	11B	Residence	No	78 Carmen Drive	60	55	56	52	56	52	0	0
2541	4428	11B	Residence	No	80 Carmen Drive	60	55	61	57	61	57	0	0
2542	4407	11B	Residence	No	82 Carmen Drive	60	55	59	55	59	55	0	0
2543	4378	11B	Residence	No	84 Carmen Drive	60	55	60	56	60	56	0	0
2544	4353	11B	Residence	No	86 Carmen Drive	60	55	57	53	57	53	0	0
2545	4326	11B	Residence	No	88 Carmen Drive	60	55	56	52	56	52	0	0
2546	4288	11B	Residence	No	90 Carmen Drive	60	55	55	52	55	52	0	0
2547	4264	11B	Residence	No	92 Carmen Drive	60	55	56	53	56	53	0	0
2548	4234	11B	Residence	No	22 Watton Road	60	55	61	57	61	57	0	0
2549	4239	11B	Residence	No	94 Carmen Drive	60	55	58	54	58	54	0	0
2552	4192	11B	Residence	No	31 Watton Road	60	55	60	56	60	56	0	0
2553	4151	11B	Residence	No	49 Oakes Road	60	55	59	56	59	56	0	0
2554	4153	11B	Residence	No	51 Oakes Road	60	55	57	53	57	53	0	0
2555	4191	11B	Residence	No	29 Watton Road	60	55	55	52	55	52	0	0
2557	4652	11B	Residence	No	3 Morton Avenue	60	55	60	57	60	57	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2559	4678	11B	Residence	No	103 Murray Farm Road	60	55	58	54	58	54	0	0
2560	4682	11B	Residence	No	101 Murray Farm Road	60	55	59	55	59	55	0	0
2561	4684	11B	Residence	No	99 Murray Farm Road	60	55	57	53	57	53	0	0
2562	4688	11B	Residence	No	97 Murray Farm Road	60	55	55	52	55	52	0	0
2563	4720	11B	Residence	No	100 Murray Farm Road	60	55	64	60	64	60	0	0
2564	4739	11B	Residence	No	3 Wilshire Avenue	60	55	63	59	63	59	0	0
2565	4745	11B	Residence	No	5 Wilshire Avenue	60	55	63	60	63	60	0	0
2566	4753	11B	Residence	No	7 Wilshire Avenue	60	55	63	60	63	60	0	0
2567	4762	11B	Residence	No	9 Wilshire Avenue	60	55	63	59	63	59	0	0
2568	4770	11B	Residence	No	11 Wilshire Avenue	60	55	64	61	64	61	0	0
2569	4889	11B	Residence	No	11 Wilshire Avenue	60	55	61	57	61	57	0	0
2571	4885	11B	Residence	No	17 Wilshire Avenue	60	55	60	57	60	57	0	0
2572	4883	11B	Residence	No	19 Wilshire Avenue	60	55	61	58	61	58	0	0
2573	4887	11B	Residence	No	21 Wilshire Avenue	60	55	61	57	61	57	0	0
2574	4778	11B	Residence	No	25 Wilshire Avenue	60	55	60	56	60	56	0	0
2575	4779	11B	Residence	No	25 Wilshire Avenue	60	55	59	55	59	55	0	0
2576	4780	11B	Residence	No	27 Wilshire Avenue	60	55	58	55	58	55	0	0
2577	4772	11B	Residence	No	10 Wilshire Avenue	60	55	57	53	57	53	0	0
2578	4761	11B	Residence	No	8 Wilshire Avenue	60	55	59	55	59	55	0	0
2579	4747	11B	Residence	No	6 Wilshire Avenue	60	55	58	54	58	54	0	0
2580	4736	11B	Residence	No	2B Wilshire Avenue	60	55	59	56	59	56	0	0
2583	4742	11B	Residence	No	92 Murray Farm Road	60	55	56	53	56	53	0	0
2584	4743	11B	Residence	No	90 Murray Farm Road	60	55	54	50	54	50	0	0
2585	4746	11B	Residence	No	88 Murray Farm Road	60	55	52	49	52	49	0	0
2586	4752	11B	Residence	No	4 Wilshire Avenue	60	55	53	50	53	50	0	0
2587	4763	11B	Residence	No	4A Wilshire Avenue	60	55	58	54	58	54	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2588	4766	11B	Residence	No	5 Haines Avenue	60	55	52	49	52	49	0	0
2589	4758	11B	Residence	No	3 Haines Avenue	60	55	52	48	52	48	0	0
2590	4776	11B	Residence	No	12 Wilshire Avenue	60	55	52	48	52	48	0	0
2591	4777	11B	Residence	No	14 Wilshire Avenue	60	55	52	48	52	48	0	0
2592	4781	11B	Residence	No	7 Haines Avenue	60	55	51	48	51	48	0	0
2593	4693	11B	Residence	No	95 Murray Farm Road	60	55	57	53	57	53	0	0
2594	4704	11B	Residence	No	93 Murray Farm Road	60	55	56	52	56	52	0	0
2595	4714	11B	Residence	No	91 Murray Farm Road	60	55	56	52	56	52	0	0
2596	4940	11B	Residence	No	13 Gossell Grove	60	55	51	47	51	47	0	0
2597	4954	11B	Residence	No	17 Gossell Grove	60	55	53	49	53	49	0	0
2598	4971	11B	Residence	No	20 Gossell Grove	60	55	54	51	54	51	0	0
2599	4967	11B	Residence	No	18 Gossell Grove	60	55	53	49	53	49	0	0
2600	4960	11B	Residence	No	16 Gossell Grove	60	55	51	47	51	47	0	0
2601	4943	11B	Residence	No	15 Gossell Grove	60	55	52	48	52	48	0	0
2602	4926	11B	Residence	No	11 Gossell Grove	60	55	50	46	50	46	0	0
2603	4919	11B	Residence	No	13 Haines Avenue	60	55	48	45	48	45	0	0
2604	4941	11B	Residence	No	9 Gossell Grove	60	55	51	47	51	47	0	0
2605	4936	11B	Residence	No	7 Gossell Grove	60	55	49	46	49	46	0	0
2606	4959	11B	Residence	No	14 Gossell Grove	60	55	51	48	51	48	0	0
2607	4953	11B	Residence	No	12 Gossell Grove	60	55	50	47	50	47	0	0
2608	4950	11B	Residence	No	10 Gossell Grove	60	55	49	46	49	46	0	0
2609	N/A	11B	Residence	No	5 Gossell Grove	60	55	48	45	48	45	0	0
2610	N/A	11B	Residence	No	15 Haines Avenue	60	55	47	44	47	44	0	0
2611	4895	11B	Residence	No	26 Haines Avenue	60	55	47	44	47	44	0	0
2612	4893	11B	Residence	No	24 Haines Avenue	60	55	47	44	47	44	0	0
2613	4843	11B	Residence	No	22 Haines Avenue	60	55	47	43	47	43	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2614	4810	11B	Residence	No	20 Haines Avenue	60	55	48	45	48	45	0	0
2615	4809	11B	Residence	No	18 Haines Avenue	60	55	51	47	51	47	0	0
2616	4813	11B	Residence	No	16 Haines Avenue	60	55	50	47	50	47	0	0
2617	4832	11B	Residence	No	14 Haines Avenue	60	55	53	50	53	50	0	0
2618	4798	11B	Residence	No	12 Haines Avenue	60	55	49	46	49	46	0	0
2619	4708	11B	Residence	No	89 Murray Farm Road	60	55	56	53	56	53	0	0
2620	4687	11B	Residence	No	87 Murray Farm Road	60	55	57	54	57	54	0	0
2621	4657	11B	Residence	No	83 Murray Farm Road	60	55	57	54	57	54	0	0
2622	4647	11B	Residence	No	81 Murray Farm Road	60	55	58	54	58	54	0	0
2623	4603	11B	Residence	No	77 Murray Farm Road	60	55	59	55	59	55	0	0
2624	4594	11B	Residence	No	75 Murray Farm Road	60	55	58	54	58	54	0	0
2625	4577	11B	Residence	No	73 Murray Farm Road	60	55	59	55	59	55	0	0
2626	4546	11B	Residence	No	69 Murray Farm Road	60	55	58	54	58	54	0	0
2627	4531	11B	Residence	No	67 Murray Farm Road	60	55	58	55	58	55	0	0
2628	4437	11B	Residence	No	2 Sylvia Avenue	60	55	58	54	58	54	0	0
2629	4460	11B	Residence	No	65 Murray Farm Road	60	55	55	51	55	51	0	0
2630	4443	11B	Residence	No	4 Sylvia Avenue	60	55	58	55	58	55	0	0
2631	4440	11B	Residence	No	6 Sylvia Avenue	60	55	58	55	58	55	0	0
2632	4441	11B	Residence	No	8 Sylvia Avenue	60	55	58	55	58	55	0	0
2633	4436	11B	Residence	No	10 Sylvia Avenue	60	55	59	55	59	55	0	0
2634	4434	11B	Residence	No	12 Sylvia Avenue	60	55	59	55	59	55	0	0
2635	4432	11B	Residence	No	14 Sylvia Avenue	60	55	59	56	59	56	0	0
2638	4392	11B	Residence	No	11 Sylvia Avenue	60	55	59	56	59	56	0	0
2639	4358	11B	Residence	No	61 Carmen Drive	60	55	59	55	59	55	0	0
2640	4338	11B	Residence	No	63 Carmen Drive	60	55	58	54	58	54	0	0
2641	4301	11B	Residence	No	65 Carmen Drive	60	55	57	54	57	54	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2642	4285	11B	Residence	No	67 Carmen Drive	60	55	57	53	57	53	0	0
2643	4250	11B	Residence	No	69 Carmen Drive	60	55	54	50	54	50	0	0
2644	4198	11B	Residence	No	27 Watton Road	60	55	55	51	55	51	0	0
2645	4157	11B	Residence	No	53 Oakes Road	60	55	55	52	55	52	0	0
2646	5465	12	Residence	No	53 Barclay Road	60	55	60	57	60	57	0	0
2648	5438	12	Residence	No	49 Barclay Road	60	55	59	56	59	56	0	0
2649	5431	12	Residence	No	47 Barclay Road	60	55	58	54	58	54	0	0
2650	5421	12	Residence	No	45 Barclay Road	60	55	57	54	57	54	0	0
2651	5412	12	Residence	No	43 Barclay Road	60	55	57	53	57	53	0	0
2652	5385	12	Residence	No	39 Barclay Road	60	55	55	52	55	52	0	0
2653	5377	12	Residence	No	37 Barclay Road	60	55	54	50	54	50	0	0
2654	5364	12	Residence	No	35 Barclay Road	60	55	54	50	54	50	0	0
2655	5356	12	Residence	No	33 Barclay Road	60	55	51	48	51	48	0	0
2656	5348	12	Residence	No	31 Barclay Road	60	55	52	49	52	49	0	0
2657	5334	12	Residence	No	29 Barclay Road	60	55	51	47	51	47	0	0
2658	5319	12	Residence	No	27 Barclay Road	60	55	51	48	51	48	0	0
2659	5312	12	Residence	No	25 Barclay Road	60	55	51	47	51	47	0	0
2661	5264	12	Residence	No	6 Hepburn Road	60	55	53	50	53	50	0	0
2662	5289	12	Residence	No	4 Carlton Road	60	55	54	50	54	50	0	0
2663	5298	12	Residence	No	6 Carlton Road	60	55	53	50	53	50	0	0
2664	5308	12	Residence	No	8 Carlton Road	60	55	53	50	53	50	0	0
2665	5317	12	Residence	No	10 Carlton Road	60	55	53	50	53	50	0	0
2666	5330	12	Residence	No	12 Carlton Road	60	55	53	49	53	49	0	0
2667	5342	12	Residence	No	14 Carlton Road	60	55	54	50	54	50	0	0
2668	5353	12	Residence	No	16 Carlton Road	60	55	53	50	53	50	0	0
2669	5361	12	Residence	No	18 Carlton Road	60	55	53	49	53	49	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2670	5374	12	Residence	No	20 Carlton Road	60	55	53	49	53	49	0	0
2671	5394	12	Residence	No	41 Barclay Road	60	55	53	49	53	49	0	0
2672	5393	12	Residence	No	24 Carlton Road	60	55	54	50	54	50	0	0
2673	5400	12	Residence	No	26 Carlton Road	60	55	54	50	54	50	0	0
2674	5419	12	Residence	No	28 Carlton Road	60	55	54	51	54	51	0	0
2675	5430	12	Residence	No	30 Carlton Road	60	55	59	55	59	55	0	0
2676	5435	12	Residence	No	32 Carlton Road	60	55	63	59	63	59	0	0
2677	5371	12	Residence	No	27 Carlton Road	60	55	59	55	59	55	0	0
2678	5384	12	Residence	No	27 Carlton Road	60	55	60	57	60	57	0	0
2681	5345	12	Residence	No	19 Carlton Road	60	55	55	51	55	51	0	0
2682	5331	12	Residence	No	23 Carlton Road	60	55	58	54	58	54	0	0
2683	5327	12	Residence	No	13 Carlton Road	60	55	56	52	56	52	0	0
2684	5316	12	Residence	No	15 Carlton Road	60	55	56	53	56	53	0	0
2685	5307	12	Residence	No	9 Carlton Road	60	55	55	51	55	51	0	0
2686	5294	12	Residence	No	7 Carlton Road	60	55	54	50	54	50	0	0
2687	5284	12	Residence	No	5 Carlton Road	60	55	54	51	54	51	0	0
2688	5277	12	Residence	No	3 Carlton Road	60	55	54	50	54	50	0	0
2689	5263	12	Residence	No	1 Carlton Road	60	55	55	51	55	51	0	0
2690	5262	12	Residence	No	10 Hepburn Road	60	55	53	49	53	49	0	0
2691	5248	12	Residence	No	1 Glenda Place	60	55	54	50	54	50	0	0
2692	5251	12	Residence	No	2 Glenda Place	60	55	52	49	52	49	0	0
2693	5239	12	Residence	No	3 Glenda Place	60	55	53	50	53	50	0	0
2694	5229	12	Residence	No	7 Glenda Place	60	55	54	50	54	50	0	0
2695	5237	12	Residence	No	4 Dale Place	60	55	54	50	54	50	0	0
2696	5243	12	Residence	No	2 Dale Place	60	55	55	51	55	51	0	0
2697	5224	12	Residence	No	6 Dale Place	60	55	54	50	54	50	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2698	5228	12	Residence	No	7 Glenda Place	60	55	52	48	52	48	0	0
2700	5231	12	Residence	No	6 Glenda Place	60	55	52	49	52	49	0	0
2701	5259	12	Residence	No	12 Hepburn Road	60	55	55	52	55	52	0	0
2702	5258	12	Residence	No	14 Hepburn Road	60	55	55	51	55	51	0	0
2703	5267	12	Residence	No	16 Hepburn Road	60	55	56	53	56	53	0	0
2705	5275	12	Residence	No	18 Hepburn Road	60	55	56	52	56	52	0	0
2707	5305	12	Residence	No	24 Hepburn Road	60	55	56	53	56	53	0	0
2708	5300	12	Residence	No	26 Hepburn Road	60	55	60	57	60	57	0	0
2709	5292	12	Residence	No	25 Hepburn Road	60	55	58	55	58	55	0	0
2710	5279	12	Residence	No	23 Hepburn Road	60	55	58	55	58	55	0	0
2711	5268	12	Residence	No	21 Hepburn Road	60	55	57	54	57	54	0	0
2712	5265	12	Residence	No	19 Hepburn Road	60	55	57	54	57	54	0	0
2713	5257	12	Residence	No	17 Hepburn Road	60	55	58	54	58	54	0	0
2714	5253	12	Residence	No	15 Hepburn Road	60	55	57	54	57	54	0	0
2715	5247	12	Residence	No	13 Hepburn Road	60	55	56	53	56	53	0	0
2716	5318	12	Residence	No	11 Carlton Road	60	55	55	51	55	51	0	0
2717	5233	12	Residence	No	3 Dale Place	60	55	57	53	57	53	0	0
2718	5215	12	Residence	No	9 Dale Place	60	55	58	55	58	55	0	0
2719	5238	12	Residence	No	1 Dale Place	60	55	55	52	55	52	0	0
2720	5218	12	Residence	No	11 Dale Place	60	55	56	53	56	53	0	0
2721	5219	12	Residence	No	8 Dale Place	60	55	54	50	54	50	0	0
2722	5221	12	Residence	No	5 Dale Place	60	55	58	54	58	54	0	0
2723	5301	12	Residence	No	23 Barclay Road	60	55	50	46	50	46	0	0
2724	5280	12	Residence	No	4 Hepburn Road	60	55	51	47	51	47	0	0
2725	5252	12	Residence	No	3 Hepburn Road	60	55	51	47	51	47	0	0
2726	5255	12	Residence	No	1 Hepburn Road	60	55	51	47	51	47	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2727	5242	12	Residence	No	17 Barclay Road	60	55	51	48	51	48	0	0
2728	5232	12	Residence	No	15 Barclay Road	60	55	51	47	51	47	0	0
2729	5155	12	Residence	No	24 Yale Close	60	55	64	60	64	60	0	0
2730	5138	12	Residence	No	29 Yale Close	60	55	59	56	59	56	0	0
2731	5129	12	Residence	No	27 Yale Close	60	55	57	53	57	53	0	0
2732	5116	12	Residence	No	25 Yale Close	60	55	57	54	57	54	0	0
2733	5110	12	Residence	No	23 Yale Close	60	55	57	53	57	53	0	0
2734	5105	12	Residence	No	21 Yale Close	60	55	56	52	56	52	0	0
2735	5107	12	Residence	No	19 Yale Close	60	55	55	52	55	52	0	0
2736	5108	12	Residence	No	17 Yale Close	60	55	56	52	56	52	0	0
2737	5106	12	Residence	No	15 Yale Close	60	55	54	50	54	50	0	0
2738	5104	12	Residence	No	13 Yale Close	60	55	54	50	54	50	0	0
2739	5100	12	Residence	No	11 Yale Close	60	55	53	50	53	50	0	0
2740	5099	12	Residence	No	9 Yale Close	60	55	52	49	52	49	0	0
2741	5096	12	Residence	No	7 Yale Close	60	55	53	50	53	50	0	0
2742	5095	12	Residence	No	5 Yale Close	60	55	51	47	51	47	0	0
2743	5090	12	Residence	No	3 Yale Close	60	55	51	48	51	48	0	0
2744	5089	12	Residence	No	11 Baden Powell Place	60	55	50	47	50	47	0	0
2745	5076	12	Residence	No	7 Duncan Place	60	55	60	56	60	56	0	0
2746	5094	12	Residence	No	1 Yale Close	60	55	50	46	50	46	0	0
2747	5079	12	Residence	No	5 Duncan Place	60	55	57	53	57	53	0	0
2748	5078	12	Residence	No	3 Duncan Place	60	55	56	53	56	53	0	0
2749	5077	12	Residence	No	1 Duncan Place	60	55	56	52	56	52	0	0
2750	5082	12	Residence	No	4 Duncan Place	60	55	52	49	52	49	0	0
2751	5084	12	Residence	No	6 Duncan Place	60	55	52	48	52	48	0	0
2752	5085	12	Residence	No	8 Duncan Place	60	55	55	51	55	51	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2754	5158	12	Residence	No	22 Yale Close	60	55	62	58	62	58	0	0
2755	5159	12	Residence	No	20 Yale Close	60	55	59	56	59	56	0	0
2756	5147	12	Residence	No	16 Yale Close	60	55	57	53	57	53	0	0
2757	5162	12	Residence	No	18 Yale Close	60	55	57	54	57	54	0	0
2758	5131	12	Residence	No	14 Yale Close	60	55	55	51	55	51	0	0
2759	5128	12	Residence	No	10 Yale Close	60	55	52	49	52	49	0	0
2760	5125	12	Residence	No	8 Yale Close	60	55	52	49	52	49	0	0
2761	5136	12	Residence	No	12 Yale Close	60	55	54	50	54	50	0	0
2762	5148	12	Residence	No	5 Arley Place	60	55	55	52	55	52	0	0
2763	5163	12	Residence	No	7 Arley Place	60	55	56	53	56	53	0	0
2764	5167	12	Residence	No	9 Arley Place	60	55	52	48	52	48	0	0
2765	5168	12	Residence	No	11 Arley Place	60	55	51	47	51	47	0	0
2766	5169	12	Residence	No	10 Arley Place	60	55	54	50	54	50	0	0
2767	5172	12	Residence	No	7 Barclay Road	60	55	53	50	53	50	0	0
2768	5161	12	Residence	No	5 Barclay Road	60	55	54	50	54	50	0	0
2769	5151	12	Residence	No	1 Barclay Road	60	55	51	47	51	47	0	0
2770	5142	12	Residence	No	1 Baden Powell Place	60	55	51	48	51	48	0	0
2772	5134	12	Residence	No	3 Baden Powell Place	60	55	50	46	50	46	0	0
2773	5123	12	Residence	No	5 Baden Powell Place	60	55	50	46	50	46	0	0
2775	5119	12	Residence	No	4 Yale Close	60	55	50	47	50	47	0	0
2776	5121	12	Residence	No	6 Yale Close	60	55	51	47	51	47	0	0
2777	5135	12	Residence	No	4 Arley Place	60	55	51	47	51	47	0	0
2778	5144	12	Residence	No	6 Arley Place	60	55	52	49	52	49	0	0
2779	5152	12	Residence	No	8 Arley Place	60	55	51	48	51	48	0	0
2780	5632	13	Residence	No	10 Mill Drive	60	55	58	54	58	54	0	0
2781	5641	13	Residence	No	8 Mill Drive	60	55	60	57	60	57	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2782	5646	13	Residence	No	6 Mill Drive	60	55	60	56	60	56	0	0
2784	5578	13	Residence	No	18 Mill Drive	60	55	55	52	55	52	0	0
2785	5572	13	Residence	No	20 Mill Drive	60	55	54	50	54	50	0	0
2786	5561	13	Residence	No	22 Mill Drive	60	55	55	52	55	52	0	0
2787	5550	13	Residence	No	24 Mill Drive	60	55	54	50	54	50	0	0
2788	5537	13	Residence	No	26 Mill Drive	60	55	50	46	50	46	0	0
2789	5526	13	Residence	No	28 Mill Drive	60	55	54	51	54	51	0	0
2790	5510	13	Residence	No	30 Mill Drive	60	55	54	50	54	50	0	0
2791	5503	13	Residence	No	32 Mill Drive	60	55	56	52	56	52	0	0
2793	5476	13	Residence	No	21 Alderson Avenue	60	55	56	53	56	53	0	0
2794	5493	13	Residence	No	34 Mill Drive	60	55	57	54	57	54	0	0
2795	5478	13	Residence	No	36 Mill Drive	60	55	57	54	57	54	0	0
2796	5439	13	Residence	No	38 Mill Drive	60	55	57	53	57	53	0	0
2798	5437	13	Residence	No	30 Alderson Avenue	60	55	54	51	54	51	0	0
2799	5427	13	Residence	No	40 Mill Drive	60	55	54	51	54	51	0	0
2800	5418	13	Residence	No	49 Larra Crescent	60	55	51	48	51	48	0	0
2802	5415	13	Residence	No	42 Mill Drive	60	55	55	51	55	51	0	0
2804	5391	13	Residence	No	62 Larra Crescent	60	55	50	47	50	47	0	0
2805	5392	13	Residence	No	44 Mill Drive	60	55	53	49	53	49	0	0
2807	5378	13	Residence	No	46 Mill Drive	60	55	53	49	53	49	0	0
2808	5373	13	Residence	No	6 Raine Avenue	60	55	49	46	49	46	0	0
2810	5368	13	Residence	No	2 Raine Avenue	60	55	52	49	52	49	0	0
2812	5329	13	Residence	No	52 Mill Drive	60	55	53	49	53	49	0	0
2813	5337	13	Residence	No	50 Mill Drive	60	55	53	49	53	49	0	0
2814	5302	13	Residence	No	63 Mill Drive	60	55	55	52	55	52	0	0
2815	5310	13	Residence	No	61 Mill Drive	60	55	56	52	56	52	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2816	5313	13	Residence	No	59 Mill Drive	60	55	56	52	56	52	0	0
2817	5325	13	Residence	No	57 Mill Drive	60	55	58	54	58	54	0	0
2818	5336	13	Residence	No	55 Mill Drive	60	55	56	52	56	52	0	0
2819	5351	13	Residence	No	53 Mill Drive	60	55	54	50	54	50	0	0
2820	5357	13	Residence	No	51 Mill Drive	60	55	55	51	55	51	0	0
2821	5370	13	Residence	No	49 Mill Drive	60	55	55	51	55	51	0	0
2822	5383	13	Residence	No	47 Mill Drive	60	55	55	51	55	51	0	0
2823	5395	13	Residence	No	45 Mill Drive	60	55	55	51	55	51	0	0
2824	5411	13	Residence	No	43 Mill Drive	60	55	55	51	55	51	0	0
2825	5416	13	Residence	No	41 Mill Drive	60	55	58	54	58	54	0	0
2826	5426	13	Residence	No	39 Mill Drive	60	55	56	52	56	52	0	0
2827	5434	13	Residence	No	37 Mill Drive	60	55	58	54	58	54	0	0
2828	5456	13	Residence	No	35 Mill Drive	60	55	62	59	62	59	0	0
2829	5463	13	Residence	No	33 Mill Drive	60	55	58	54	58	54	0	0
2830	5480	13	Residence	No	31 Mill Drive	60	55	60	56	60	56	0	0
2831	5492	13	Residence	No	29 Mill Drive	60	55	59	56	59	56	0	0
2832	5502	13	Residence	No	27 Mill Drive	60	55	57	53	57	53	0	0
2833	5511	13	Residence	No	25 Mill Drive	60	55	56	52	56	52	0	0
2834	5518	13	Residence	No	23 Mill Drive	60	55	59	55	59	55	0	0
2835	5533	13	Residence	No	21 Mill Drive	60	55	57	53	57	53	0	0
2836	5542	13	Residence	No	19 Mill Drive	60	55	59	55	59	55	0	0
2837	5555	13	Residence	No	17 Mill Drive	60	55	58	55	58	55	0	0
2838	5565	13	Residence	No	15 Mill Drive	60	55	59	56	59	56	0	0
2839	5576	13	Residence	No	13 Mill Drive	60	55	59	56	59	56	0	0
2840	5585	13	Residence	No	11 Mill Drive	60	55	58	54	58	54	0	0
2841	5596	13	Residence	No	9 Mill Drive	60	55	56	53	56	53	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2844	5620	13	Residence	No	3 Mill Drive	60	55	61	57	61	57	0	0
2846	5649	13	Residence	No	4 Mill Drive	60	55	63	60	63	60	0	0
2849	5650	13	Residence	No	2 Mill Drive	60	55	63	59	63	59	0	0
2851	5608	13	Residence	No	87 Barclay Road	60	55	60	57	60	57	0	0
2852	5600	13	Residence	No	85 Barclay Road	60	55	60	57	60	57	0	0
2853	5591	13	Residence	No	83 Barclay Road	60	55	58	55	58	55	0	0
2854	5579	13	Residence	No	81 Barclay Road	60	55	58	55	58	55	0	0
2855	5567	13	Residence	No	79 Barclay Road	60	55	58	55	58	55	0	0
2856	5562	13	Residence	No	77 Barclay Road	60	55	60	57	60	57	0	0
2857	5553	13	Residence	No	75 Barclay Road	60	55	59	56	59	56	0	0
2858	5535	13	Residence	No	73 Barclay Road	60	55	59	56	59	56	0	0
2859	5524	13	Residence	No	71 Barclay Road	60	55	59	55	59	55	0	0
2860	5564	13	Residence	No	114-116 Barclay Road	60	55	65	61	65	61	0	0
2861	5574	13	Residence	No	118 Barclay Road	60	55	63	60	63	60	0	0
2862	5587	13	Residence	No	120 Barclay Road	60	55	64	60	64	60	0	0
2863	5597	13	Residence	No	122 Barclay Road	60	55	60	57	60	57	0	0
2864	5607	13	Residence	No	124 Barclay Road	60	55	63	59	63	59	0	0
2865	5616	13	Residence	No	126 Barclay Road	60	55	61	58	61	58	0	0
2866	5627	13	Residence	No	128 Barclay Road	60	55	60	57	60	57	0	0
2867	5631	13	Residence	No	130 Barclay Road	60	55	61	57	61	57	0	0
2868	5643	13	Residence	No	132 Barclay Road	60	55	61	58	61	58	0	0
2869	5658	13	Residence	No	134 Barclay Road	60	55	61	58	61	58	0	0
2870	5664	13	Residence	No	136 Barclay Road	60	55	61	58	61	58	0	0
2871	5701	13	Residence	No	138 Barclay Road	60	55	61	58	61	58	0	0
2872	5830	14	Residence	No	41 Williams Road	60	55	65	61	65	61	0	0
2873	5826	14	Residence	No	39 Williams Road	60	55	63	59	63	59	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2874	5815	14	Residence	No	37 Williams Road	60	55	59	56	59	56	0	0
2875	5811	14	Residence	No	35 Williams Road	60	55	61	57	61	57	0	0
2876	5804	14	Residence	No	33 Williams Road	60	55	61	57	61	57	0	0
2877	5796	14	Residence	No	31 Williams Road	60	55	62	58	62	58	0	0
2878	5790	14	Residence	No	29 Williams Road	60	55	67	63	67	63	0	0
2879	5777	14	Residence	No	27 Williams Road	60	55	60	56	60	56	0	0
2880	5770	14	Residence	No	25 Williams Road	60	55	67	63	67	63	0	0
2881	5754	14	Residence	No	23 Williams Road	60	55	65	62	65	62	0	0
2882	5743	14	Residence	No	21 Williams Road	60	55	70	66	70	66	0	0
2883	5731	14	Residence	No	19 Williams Road	60	55	65	62	65	62	0	0
2884	5720	14	Residence	No	17 Williams Road	60	55	64	60	64	60	0	0
2885	5706	14	Residence	No	15 Williams Road	60	55	66	62	66	62	0	0
2886	5698	14	Residence	No	13 Williams Road	60	55	63	60	63	60	0	0
2887	5692	14	Residence	No	11 Williams Road	60	55	63	60	63	60	0	0
2888	5661	14	Residence	No	4 Rajola Place	60	55	61	57	61	57	0	0
2889	5647	14	Residence	No	6 Rajola Place	60	55	63	60	63	60	0	0
2890	5638	14	Residence	No	8 Rajola Place	60	55	67	63	67	63	0	0
2892	5617	14	Residence	No	10 Rajola Place	60	55	63	59	63	59	0	0
2893	5594	14	Residence	No	3 Perry Street	60	55	61	58	61	58	0	0
2894	5582	14	Residence	No	1 Perry Street	60	55	59	55	59	55	0	0
2895	5601	14	Residence	No	5 Perry Street	60	55	61	58	61	58	0	0
2896	5606	14	Residence	No	7 Perry Street	60	55	58	55	58	55	0	0
2897	5609	14	Residence	No	9 Perry Street	60	55	58	55	58	55	0	0
2898	5612	14	Residence	No	11 Perry Street	60	55	55	51	55	51	0	0
2899	5615	14	Residence	No	13 Perry Street	60	55	54	50	54	50	0	0
2900	5622	14	Residence	No	15 Perry Street	60	55	53	49	53	49	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2901	5630	14	Residence	No	2 Williams Road	60	55	52	48	52	48	0	0
2902	5651	14	Residence	No	6 Williams Road	60	55	52	49	52	49	0	0
2903	5659	14	Residence	No	8 Williams Road	60	55	54	51	54	51	0	0
2904	5633	14	Residence	No	3 Williams Road	60	55	55	52	55	52	0	0
2905	5640	14	Residence	No	5 Williams Road	60	55	58	54	58	54	0	0
2906	5628	14	Residence	No	3 Rajola Place	60	55	58	55	58	55	0	0
2907	5624	14	Residence	No	5 Rajola Place	60	55	57	54	57	54	0	0
2908	5660	14	Residence	No	7 Williams Road	60	55	58	54	58	54	0	0
2909	5670	14	Residence	No	7 Williams Road	60	55	58	54	58	54	0	0
2910	5672	14	Residence	No	10 Williams Road	60	55	54	51	54	51	0	0
2911	5686	14	Residence	No	8 Thorn Place	60	55	51	48	51	48	0	0
2912	5667	14	Residence	No	7 Thorn Place	60	55	49	45	49	45	0	0
2913	5688	14	Residence	No	2 Sophia Crescent	60	55	54	51	54	51	0	0
2914	5700	14	Residence	No	6 Thorn Place	60	55	50	46	50	46	0	0
2915	5705	14	Residence	No	6 Sophia Crescent	60	55	51	48	51	48	0	0
2916	5715	14	Residence	No	8 Sophia Crescent	60	55	52	48	52	48	0	0
2917	5714	14	Residence	No	1 Sophia Crescent	60	55	55	52	55	52	0	0
2918	5721	14	Residence	No	14 Williams Road	60	55	59	55	59	55	0	0
2919	5735	14	Residence	No	16 Williams Road	60	55	57	54	57	54	0	0
2920	5744	14	Residence	No	18 Williams Road	60	55	57	53	57	53	0	0
2921	5757	14	Residence	No	20 Williams Road	60	55	58	54	58	54	0	0
2923	5778	14	Residence	No	24 Williams Road	60	55	56	52	56	52	0	0
2924	5791	14	Residence	No	26 Williams Road	60	55	57	54	57	54	0	0
2925	5797	14	Residence	No	28 Williams Road	60	55	56	52	56	52	0	0
2926	5803	14	Residence	No	30 Williams Road	60	55	54	51	54	51	0	0
2927	5814	14	Residence	No	34 Williams Road	60	55	57	53	57	53	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2928	5810	14	Residence	No	32 Williams Road	60	55	56	53	56	53	0	0
2929	5822	14	Residence	No	36 Williams Road	60	55	52	48	52	48	0	0
2930	5824	14	Residence	No	15 Hancey Avenue	60	55	51	48	51	48	0	0
2931	5836	14	Residence	No	43 Williams Road	60	55	64	60	64	60	0	0
2932	5842	14	Residence	No	45 Williams Road	60	55	62	58	62	58	0	0
2933	5846	14	Residence	No	49 Williams Road	60	55	60	56	60	56	0	0
2934	5852	14	Residence	No	44 Sophia Crescent	60	55	58	55	58	55	0	0
2935	5829	14	Residence	No	12 Hancey Avenue	60	55	51	47	51	47	0	0
2936	5812	14	Residence	No	13 Hancey Avenue	60	55	52	49	52	49	0	0
2937	5807	14	Residence	No	11 Hancey Avenue	60	55	53	49	53	49	0	0
2938	5800	14	Residence	No	9 Hancey Avenue	60	55	51	47	51	47	0	0
2939	5795	14	Residence	No	7 Hancey Avenue	60	55	55	51	55	51	0	0
2940	5781	14	Residence	No	5 Hancey Avenue	60	55	52	48	52	48	0	0
2941	5775	14	Residence	No	3 Hancey Avenue	60	55	51	47	51	47	0	0
2943	5749	14	Residence	No	7 Sophia Crescent	60	55	52	48	52	48	0	0
2944	5737	14	Residence	No	5 Sophia Crescent	60	55	53	50	53	50	0	0
2945	5761	14	Residence	No	9 Sophia Crescent	60	55	52	48	52	48	0	0
2946	5764	14	Residence	No	1 Hancey Avenue	60	55	50	47	50	47	0	0
2947	5794	14	Residence	No	2 Hancey Avenue	60	55	48	45	48	45	0	0
2948	5799	14	Residence	No	4 Hancey Avenue	60	55	49	45	49	45	0	0
2949	5806	14	Residence	No	6 Hancey Avenue	60	55	49	46	49	46	0	0
2950	5813	14	Residence	No	8 Hancey Avenue	60	55	49	45	49	45	0	0
2951	5819	14	Residence	No	10 Hancey Avenue	60	55	50	47	50	47	0	0
2983	5910	15B	Residence	No	41 Dremeday Street	60	55	67	63	67	63	0	0
2984	5917	15B	Residence	No	39 Dremeday Street	60	55	63	60	63	60	0	0
2985	5924	15B	Residence	No	37 Dremeday Street	60	55	62	58	62	58	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
2986	5943	15B	Residence	No	35 Dremeday Street	60	55	59	55	59	55	0	0
2987	5952	15B	Residence	No	33 Dremeday Street	60	55	55	51	55	51	0	0
2988	5997	15B	Residence	No	27-31 Dremeday Street	60	55	54	51	54	51	0	0
2989	5967	15B	Residence	No	27-31 Dremeday Street	60	55	57	54	57	54	0	0
2990	5987	15B	Residence	No	27-31 Dremeday Street	60	55	57	53	57	53	0	0
2992	6005	15B	Residence	No	25 Dremeday Street	60	55	50	47	50	47	0	0
2993	6024	15B	Residence	No	23 Dremeday Street	60	55	51	47	51	47	0	0
2994	6033	15B	Residence	No	21 Dremeday Street	60	55	50	46	50	46	0	0
2998	5922	15B	Residence	No	36 Dremeday Street	60	55	57	53	57	53	0	0
2999	5916	15B	Residence	No	38 Dremeday Street	60	55	53	50	53	50	0	0
3000	5909	15B	Residence	No	40 Dremeday Street	60	55	55	51	55	51	0	0
3001	5893	15B	Residence	No	42-44 Dremeday Street	60	55	63	59	63	59	0	0
3002	5888	15B	Residence	Yes (4)	42-44 Dremeday Street	60	55	67	63	67	63	0	0
3003	5882	15B	Residence	No	46 Dremeday Street	60	55	69	66	69	66	0	0
3004	5895	15B	Residence	No	40A Dremeday Street	60	55	51	47	51	47	0	0
3005	5904	15B	Residence	No	38A Dremeday Street	60	55	55	51	55	51	0	0
3006	5921	15B	Residence	No	34 Dremeday Street	60	55	56	52	56	52	0	0
3007	5948	15B	Residence	No	30 Dremeday Street	60	55	52	49	52	49	0	0
3008	5915	15B	Residence	No	38 Roland Avenue	60	55	53	49	53	49	0	0
3009	5911	15B	Residence	No	40 Roland Avenue	60	55	53	50	53	50	0	0
3010	5897	15B	Residence	No	42 Roland Avenue	60	55	55	52	55	52	0	0
3011	5891	15B	Residence	No	44 Roland Avenue	60	55	54	50	54	50	0	0
3012	5884	15B	Residence	No	46 Roland Avenue	60	55	65	62	65	62	0	0
3013	5876	15B	Residence	No	48 Roland Avenue	60	55	65	62	65	62	0	0
3015	5879	15B	Residence	No	33 Roland Avenue	60	55	62	58	62	58	0	0
3016	5885	15B	Residence	No	31 Roland Avenue	60	55	60	56	60	56	0	0





ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
3720	4965	11B	Residence	No	22 Gossell Grove	60	55	53	50	53	50	0	0
3721	5226	12	Residence	No	7 Dale Place	60	55	56	52	56	52	0	0
3893	3509	10A	Residence	No	12 Gum Grove Place	60	55	54	51	54	51	0	0
3897	3538	10A	Residence	No	9 Hillside Place	60	55	53	50	53	50	0	0
3898	3636	10A	Residence	No	1 Gum Grove Place	60	55	52	49	52	49	0	0
3899	3589	10A	Residence	No	13 Eaton Road	60	55	55	51	55	51	0	0
3901	4072	10D	Residence	No	56 Oakes Road	60	55	59	56	59	56	0	0
3903	4149	11B	Residence	No	47 Oakes Road	60	55	61	57	61	57	0	0
3904	4189	11B	Residence	No	33 Watton Road	60	55	59	56	59	56	0	0
3905	4389	11B	Residence	No	13 Sylvia Avenue	60	55	60	57	60	57	0	0
3906	4442	11B	Residence	No	63 Murray Farm Road	60	55	57	54	57	54	0	0
3907	4439	11B	Residence	No	57 Carmen Drive	60	55	59	55	59	55	0	0
3908	4635	11B	Residence	No	79 Murray Farm Road	60	55	58	54	58	54	0	0
3909	4673	11B	Residence	No	85 Murray Farm Road	60	55	57	54	57	54	0	0
3911	4674	11B	Residence	No	105 Murray Farm Road	60	55	61	57	61	57	0	0
3912	4738	11B	Residence	No	94 Murray Farm Road	60	55	57	53	57	53	0	0
3913	4723	11B	Residence	No	1 Wilshire Avenue	60	55	59	56	59	56	0	0
3914	4771	11B	Residence	No	1 Christel Avenue	60	55	54	50	54	50	0	0
3915	4801	11B	Residence	No	6 Haines Avenue	60	55	55	52	55	52	0	0
3916	4799	11B	Residence	No	8 Haines Avenue	60	55	56	52	56	52	0	0
3917	4800	11B	Residence	No	10 Haines Avenue	60	55	55	52	55	52	0	0
3918	4884	11B	Residence	No	15 Wilshire Avenue	60	55	70	67	70	67	0	0
3919	4898	11B	Residence	No	28 Haines Avenue	60	55	48	44	48	44	0	0
3920	N/A	11B	Residence	No	17 Haines Avenue	60	55	48	45	48	45	0	0
3921	5007	11A	Residence	No	9 Range Road	60	55	54	50	54	50	0	0
3922	5044	11A	Residence	No	12 Range Road	60	55	57	54	57	54	0	0



ID WM	ID EIS	NCA	Type	Strata (Units)	Address	Noise Goal		ONMAR Build option 2029		PCNA Build option 2029		Change in prediction	
								L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>	L <sub>Aeq,15hr</sub>	L <sub>Aeq,9hr</sub>
3923	5113	12	Residence	No	7 Baden Powell Place	60	55	50	46	50	46	0	0
3924	5140	12	Residence	No	3 Arley Place	60	55	52	48	52	48	0	0
3925	5290	12	Residence	No	21 Barclay Road	60	55	50	46	50	46	0	0
3926	5281	12	Residence	No	20 Hepburn Road	60	55	55	51	55	51	0	0
3927	5303	12	Residence	No	22 Hepburn Road	60	55	55	51	55	51	0	0
3928	5359	12	Residence	No	21 Carlton Road	60	55	57	53	57	53	0	0
3929	5354	12	Residence	No	25 Carlton Road	60	55	58	54	58	54	0	0
3930	5367	13	Residence	No	4 Raine Avenue	60	55	50	46	50	46	0	0
3931	5457	12	Residence	No	51 Barclay Road	60	55	58	55	58	55	0	0
3932	5637	14	Residence	No	19 Perry Street	60	55	50	47	50	47	0	0
3933	5642	14	Residence	No	21 Perry Street	60	55	50	46	50	46	0	0
3934	5623	14	Residence	No	7 Rajola Place	60	55	64	61	64	61	0	0
3935	5604	13	Residence	No	7 Mill Drive	60	55	55	52	55	52	0	0
3936	5621	13	Residence	No	1 Mill Drive	60	55	63	60	63	60	0	0
3937	5726	14	Residence	No	3 Sophia Crescent	60	55	51	48	51	48	0	0
3938	5840	14	Residence	No	47 Williams Road	60	55	60	57	60	57	0	0
3939	5939	15B	Residence	No	32 Dremeday Street	60	55	55	51	55	51	0	0
3940	5949	15B	Residence	No	32A Dremeday Street	60	55	52	48	52	48	0	0
3976	4449	11B	Residence	No	78 Carmen Drive	60	55	62	59	62	59	0	0
3980	4544	11B	Residence	No	52B Carmen Drive	60	55	60	56	60	56	0	0